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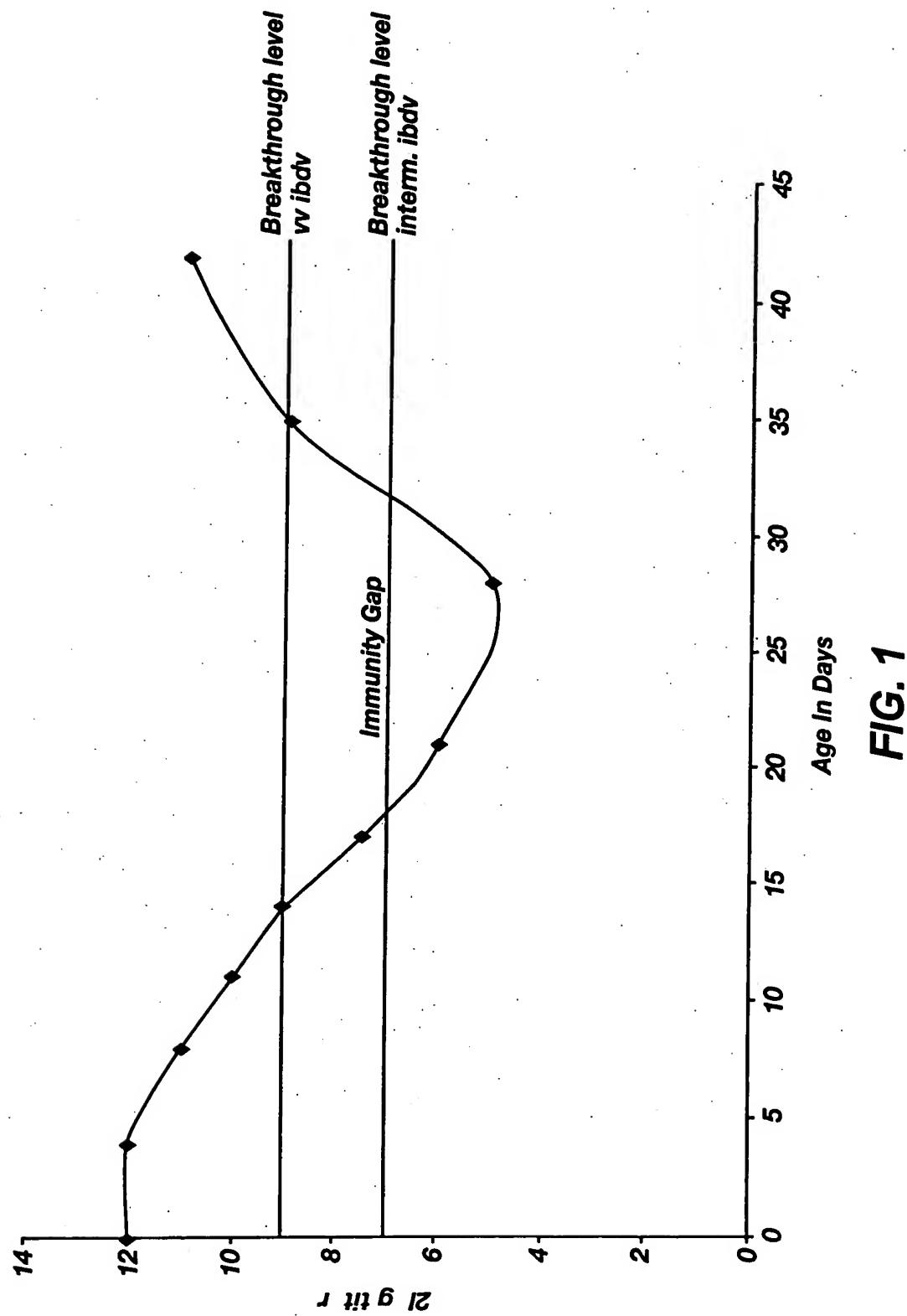


FIG. 1

FIG. 2A

FIG. 2B

FIG. 2C

FIG. 2D

FIG. 2E

FIG. 2F

CONSENSUS:	tgtracygay atggcyaact tcgcmctca	cgaccgcAAC	gcmcaymGGA	tgmrmaattt	2580
CEF94-A:	...g..t..c .....	a.....	...c..tc...	...cga.....	2580
D6948-A:	...g..t..t .....	a.....	...c..tc...	...cgc.....	2580
TY89-A:	...a..c..c .....	t.....	...a..ca...	...aaa.....	284
CONSENSUS:	ycthgcaaay gcwccmca	cmggmagcaa	gtcgcaragr	gccaagta	2640
CEF94-A:	t..t.....c ..a..a..a..	a..c.....	a..g.....	c..g.....a..a..	2640
D6948-A:	t..c.....c ..a..a..a..	a..c.....	a..a.....	c..g.....a..a..	2640
TY89-A:	c..a.....t ..t..c..g..	c..a.....	g..g.....t..	c..g..t..	344
CONSENSUS:	ctacggagtg gagggcymgrg	gcccacddcc	agargargca	cagaggara	2700
CEF94-A:	.....tc..g..	.....a..	.....g..a..	.....a..	2700
D6948-A:	.....cc..g..	.....t..	.....g..a..	.....a..	2700
TY89-A:	.....ta..a..	.....g..	.....a..g..	.....g..	404
CONSENSUS:	gatctcmaag aagatggara	cbatggcat	ctacttygca	acaccrgaat	2760
CEF94-A:	.....a... ..g..	.....c..	.....t..	.....a..	2760
D6948-A:	.....a... ..g..	.....t..	.....t..	.....a..	2760
TY89-A:	.....c... ..a..g..	.....a..	.....c..	.....g..	464
CONSENSUS:	caayggcac cgrggscCAA	gccccggCCA	gctvaagtac	tggcaraaca	2820
CEF94-A:	...t.....a..g..	.....a..	.....g..	...c.....	2820
D6948-A:	...t.....g..g..	.....g..	.....g..	...c.....	2820
TY89-A:	...c.....a..c..	.....a..	.....c..	...a.....	524
CONSENSUS:	accdahccm aacgaggact	aycyagacta	ygtgcaycrt	gagaagagCC	2880
CEF94-A:	...g..c..a .....	t..t.....	c..t..a .....	...a..	2880
D6948-A:	...t..t..a .....	c..t.....	c..t..a .....	...a..	2880
TY89-A:	...a..a..c .....	c..c..t..	t..c..g .....	...g..	584
CONSENSUS:	agaagaacar rtcytaaggG	cagcyacgtc	gatctacggG	gctccaggac	2940
CEF94-A:	.....a ..a..c .....	.....t .....	.....a .....	...a..g .....	2940
D6948-A:	.....a ..a..c .....	.....t .....	.....a .....	...a..g .....	2940
TY89-A:	.....g ..g..t .....	.....c .....	.....t .....	...t..a .....	644

## REPLACEMENT SHEET

## FIG. 2G

CONSENSUS:	accccaagcy	ttccatagacg	aagtygccar	rgtcttatgaa	atcaaccatg	grcgtggycc	3000
CEF94-A:	t.....t	.....t.....t	.....t.....a	.....t.....a	.....a.....a	.....a.....c..	3000
D6948-A:	c.....c	.....c.....c	.....c.....a	.....c.....a	.....c.....a	.....g.....c..	3000
TY89-A:	c.....c	.....c.....c	.....c.....g	.....c.....g	.....c.....g	.....g.....t..	704
CONSENSUS:	maaccargar	cagatgaarg	ayctgctcyt	gactgcgatg	gagatgaagc	atcgcaatcc	3060
CEF94-A:	a.....a..a	.....a..a	.....a..a	.....t.....t	.....t.....t	.....t.....t	3060
D6948-A:	c.....a..a	.....a..a	.....a..a	.....t.....c	.....t.....c	.....t.....c	3060
TY89-A:	a.....g..g	.....g..g	.....g..g	.....c.....c	.....c.....c	.....c.....c	764
CONSENSUS:	caggccggct	cyaccaaagg	cmaaggccaaa	acccaaatgct	ccawcacaga	gacccccctgg	3120
CEF94-A:	t.....t	.....t.....t	.....c.....c	.....a.....a	.....a.....a	.....a.....a	3120
D6948-A:	c.....c	.....c.....c	.....c.....c	.....a.....a	.....a.....a	.....a.....a	3120
TY89-A:	c.....c	.....c.....c	.....a.....a	.....a.....a	.....t.....t	.....t.....t	824
CONSENSUS:	wcggtggcc	cgctggatca	ggrcbgtctc	tgaygaggac	ytkgagttag	gywccttgga	3180
CEF94-A:	t.....t	.....t.....t	.....a.c.....a.c	.....t.....t	.....c.t.....c.t	.....ta.....ta	3180
D6948-A:	t.....t	.....t.....t	.....g.t.....g.t	.....t.....t	.....c.t.....c.t	.....ct.....ct	3180
TY89-A:	a.....a	.....a.....a	.....a.g.....a.g	.....c.....c	.....t.g.....t.g	.....ct.....ct	884
CONSENSUS:	gtctcccgac	accaccggcg	caggygtgga	caccaattmr	kmmhtaswrm	atycsaatt	3240
CEF94-A:	.....t.....t	.....t.....t	.....t.....t	.....t.....t	.....cg.....cg	.....caac.....caac	3240
D6948-A:	.....c.....c	.....c.....c	.....c.....c	.....t.....t	.....cg.....cg	.....caac.....caac	3240
TY89-A:	.....aa.....aa	.....aa.....aa	.....aa.....aa	.....aa.....aa	.....tcac.....tcac	.....gtga.....gtga	944
CONSENSUS:	ggatccgttc	gcgggtcccc					3260
CEF94-A:	.....	.....					3260
D6948-A:	.....	.....					3260
TY89-A:	.....	.....					964

FIG. 3A

CONSENSUS: ggataacgatg ggtctgaccc tctggagtc acgaaattaac gtggctacta ggggyatrm 60  
 CEF94-B: .....  
 D6948-B: .....

CONSENSUS: ccrcgcctr gtcacacgtt agtggatcc tttcttgatg attcttrccac catggatgac 120  
 CEF94-B: ..g.....g.....  
 D6948-B: ..a.....a.....

CONSENSUS: rtttcaaya gtcacacaggc 9cgaaggcamg atmtcagcag cgttcggcat aaaggctacw 180  
 CEF94-B: a.....c.....  
 D6948-B: g.....t.....a.....a.....

CONSENSUS: gctggacarg aytggaaaga actcytgatc cctaargtyt ggggccacc tgaggatccs 240  
 CEF94-B: .....a.....c.....  
 D6948-B: .....g.....t.....a.....t.....

CONSENSUS: ytkgcccagcc ctagtcgwct ggcmmaagttc ctcagrrara acggctacaa rrttytgca 300  
 CEF94-B: c.t.....a.....  
 D6948-B: t.g.....t.....c.....g..a.....

CONSENSUS: ccacggtctc trccyagaa ttagggatgat gagaccgayc aaatactccc wgacytagcw 360  
 CEF94-B: .....g..c.....  
 D6948-B: .....a..t.....t.....

CONSENSUS: tggatgmgrc agatagargg rgctgtttta aaaccmacyc tatctctccc yattggagay 420  
 CEF94-B: .....c.a.....a..  
 D6948-B: .....a..g.....g..a.....a..c.....a..c.....

CONSENSUS: caggagtact tcccwaarta ctacccaaca caycgcckka gcaaggaraa gcccaaatgcg 480  
 CEF94-B: .....a..g.....  
 D6948-B: .....t..a.....t.....c.....g.....a.....

## FIG. 3B

CONSENSUS: tacccgc<sup>mg</sup> aytacgc<sup>cyt</sup> actcaagc<sup>ag</sup> atgatyt<sup>acy</sup> tg<sup>ttt</sup>tctcc<sup>a</sup> gg<sup>ttt</sup>ccm<sup>gag</sup> 540  
 CEF94-B: .....a. ....c. ....c. ....t. ....c. ....a. ....a. ....540  
 D6948-B: .....c. ....t. ....c. ....t. ....c. ....c. ....540

CONSENSUS: gccam<sup>mg</sup>akr rcctwaarga tg<sup>arg</sup>tma<sup>cc</sup> ctm<sup>y</sup>tracc<sup>cc</sup> aaaacatw<sup>ag</sup> rgayaargcc 600  
 CEF94-B: .....ac. ....gg. ....g. ....a. ....a. ....ct. ....g. ....a. ....g. ....c. ....g. ....600  
 D6948-B: .....ca. ....ta. ....a. ....t. ....a. ....g. ....c. ....ac. ....a. ....a. ....t. ....a. ....600

CONSENSUS: tayggragt<sup>g</sup> ggacctacat gggacarg<sup>cm</sup> acymgact<sup>tg</sup> tk<sup>g</sup>cyatgaa rgagg<sup>tg</sup>ygcc 660  
 CEF94-B: .....t. ....a. ....a. ....a. ....tc. ....a. ....g. ....c. ....g. ....c. ....660  
 D6948-B: .....c. ....g. ....g. ....c. ....ca. ....t. ....t. ....a. ....t. ....a. ....660

CONSENSUS: actggragaa acccaaaca<sup>aa</sup> rgatc<sup>c</sup>c<sup>t</sup>cta aagcttgg<sup>gt</sup> acacyt<sup>tt</sup>ga gagcatm<sup>gcs</sup> 720  
 CEF94-B: .....a. ....a. ....g. ....g. ....t. ....t. ....c. ....g. ....720  
 D6948-B: .....g. ....g. ....a. ....a. ....c. ....c. ....a. ....c. ....720

CONSENSUS: cagctact<sup>tg</sup> acatcacwy<sup>t</sup> accggtag<sup>gg</sup> ccacccgg<sup>tg</sup> aggatgacaa gccc<sup>c</sup>tgg<sup>gt</sup>r 780  
 CEF94-B: .....ac. ....ac. ....tt. ....tt. ....a. ....a. ....a. ....a. ....780  
 D6948-B: .....tt. ....tt. ....a. ....a. ....c. ....c. ....a. ....a. ....780

CONSENSUS: ccaactcaca<sup>aa</sup> grgtgccc<sup>gtc</sup> amggatgt<sup>tg</sup> gt<sup>w</sup>ctgac<sup>gg</sup> gm<sup>g</sup>acgt<sup>aga</sup> tg<sup>g</sup>sgam<sup>ttt</sup> 840  
 CEF94-B: .....a. ....a. ....c. ....a. ....a. ....a. ....c. ....c. ....840  
 D6948-B: .....g. ....g. ....a. ....a. ....t. ....t. ....c. ....g. ....a. ....840

CONSENSUS: gaggtt<sup>g</sup>arg aytacct<sup>cc</sup> caaaatcaac ctc<sup>a</sup>agt<sup>t</sup>caat caagtggact rccmtatgtw 900  
 CEF94-B: .....a. ....t. ....a. ....t. ....a. ....a. ....a. ....a. ....a. ....900  
 D6948-B: .....g. ....c. ....g. ....c. ....c. ....c. ....g. ....c. ....t. ....900

CONSENSUS: ggtcgccacca aaggagarac wttggsgag atgatagc<sup>ya</sup> tm<sup>t</sup>tcraacca gtttctymga 960  
 CEF94-B: .....g. ....a. ....c. ....t. ....c. ....a. ....a. ....ca. ....960  
 D6948-B: .....a. ....t. ....g. ....c. ....a. ....g. ....c. ....tc. ....960

FIG. 3C

## FIG. 3D

CONSENSUS:	ctagtkgtgg	actcatcrtg	yctgatwatg	aaccckcara	tyaagacmta	tggtaaaggc	1560
CEF94-B:	....g....	....g....	....g..	....a....	....g..a.	....t....c..	1560
D6948-B:	....t....	....t....	....t..	....a..	....t..g..	....c....a..	1560
CONSENSUS:	agyggaaatg	cagccacstt	catcaacaac	cayctyytka	gcacsctwgt	gctwgaccag	1620
CEF94-B:	...c....	...c....	...g..	....c...ct..g..	....g..a..	....t..	1620
D6948-B:	...t..	...t..	...c..	....t..tc..t..	....c..t..	....a..	1620
CONSENSUS:	tggAACytgta	tgarrcarcc	yagwccagac	agcgargagt	tcaartcaat	tgargacaag	1680
CEF94-B:	....c....	....c....	....ga..g..	....c..a....	....g....	....a....	1680
D6948-B:	....t....	....t....	....ag..a..	....t..t....	....a....	....g..	1680
CONSENSUS:	ctrggyatca	acttyaagat	ttagagggcc	attgatgaya	tyaggggcaa	gctsagacag	1740
CEF94-B:	..a..t....	....t....	....t....	....t..	....t..c....	....g....	1740
D6948-B:	...g..c....	....c....	....c....	....c....	....c..t..	....c....	1740
CONSENSUS:	cttgtccycc	ttgcaacaacc	aggtaacctg	agtgggggg	tygaaccaga	rcaayccaggc	1800
CEF94-B:	....t....	....t....	....t....	....g....	....t..	....a....t....	1800
D6948-B:	....c....	....c....	....c....	....a....	....c..t..	....g....c....	1800
CONSENSUS:	ccaaactgtwg	agctkgacct	actmrgrtgg	tcwgcvacwt	acagcaaaga	tctyggatc	1860
CEF94-B:	....t....	....t....	....t....	....a..g....	....a..t..a..	....c....	1860
D6948-B:	....a....	....a....	....g....	....c..a....	....t..a..t..	....t....	1860
CONSENSUS:	tatgtgccgg	tgcttgacaa	ggaacgcyta	ttttgytctg	ctgctgtatcc	caarggrgt	1920
CEF94-B:	....t....	....t....	....t....	....c....	....t..t..	....g..a....	1920
D6948-B:	....t....	....t....	....t....	....t..	....c....	....a..g....	1920
CONSENSUS:	gagaayaara	gyctcaartc	caargtgggg	atcgagcarg	cataacaargt	wgtcaggtag	1980
CEF94-B:	....c..g..	....t....g..	....a..c..	....g..	....g..a....	....t....	1980
D6948-B:	....t..a..	....t..a..	....a..	....g..t..	....a..	....t....	1980
CONSENSUS:	gaggcggtga	ggttggtagg	tggttggaac	tacccactcc	tgaacaaagc	ytgcaagaay	2040
CEF94-B:	....	....	....	....	....	....c....	2040
D6948-B:	....	....	....	....	....	....t....	2040

FIG. 3E

FIG. 3E

CONSENSUS:	tccaaaccccg ttgttggct ccacctggcc gccaaagagrg ccaccggtgtt ccaggcmgct	2640
CEF94-B:	.....a.....	.....c.....
D6948-B:	.....g.....	.....a.....
CONSENSUS:	cttctcgag caggracgag cagaccaatg gggatggagg cyccaaacacg gtcccaagaac	2700
CEF94-B:	.....a.....	.....c.....
D6948-B:	.....g.....	.....t.....
CONSENSUS:	gcgcgtgaaaaa tggccaaatmg gcccccaacgc caaaargaga gccatgtatgg	2760
CEF94-B:	.....c.....	.....g.....
D6948-B:	.....a.....	.....a.....
CONSENSUS:	gaacctacta agaagaggac actaayccca gaccgggtat cccggccctt cgccctgcggg	2820
CEF94-B:	.....t.....	.....t.....
D6948-B:	.....c.....	.....c.....
CONSENSUS:	ggccccc	2827
CEF94-B:	.....	2827
D6948-B:	.....	2827

FIG. 4A

CONSENSUS: MTNLQDQTQQ IVPFIRSLIM PTTGPASSIPD DTLEKHTLRS ETSTYNLTVG DTGSGLIVFF 60  
 CEF94-PP: ..... 60  
 D6948-PP: ..... 60  
 TY89-PP: ..... 60

CONSENSUS: PGFPGSIVGA HYTLOQNSGNY KFDQMLLTAQ NIPASYNYCR LVSRSLTVRS STLPGGVYAL 120  
 CEF94-PP: ..... 120  
 D6948-PP: ..... 120  
 TY89-PP: ..... 120

CONSENSUS: NGTINAVTFQ GSLSELTDVS YNGLMSATAN INDKIGNVLV GEGVTVLSLP TSYDILGYVRL 180  
 CEF94-PP: ..... 180  
 D6948-PP: ..... 180  
 TY89-PP: ..... 180

CONSENSUS: GDPIPAIGLD PKMVATCDSS DRPRVYTITA ADDYQFSSQY Q.GGVTTITLE SANIDAITSL 240  
 CEF94-PP: ..... 240  
 D6948-PP: ..... 240  
 TY89-PP: ..... 240

CONSENSUS: S.GGELVFQT SV.GL.LGAT IYLIGFDGTA VITRAVAA.N GLT.GTDNL. PFN.VIPT.E 300  
 CEF94-PP: V.....H.....V.....N.....T.....L.....N..... 300  
 D6948-PP: I.....Q.....I.....D.....A.....M.....I.....S..... 300  
 TY89-PP: ..... 300

CONSENSUS: ITQPIITSIKL EIVTSKSGGQ AGDQMSWSA. GSSLAVTIHGG NYPGALRPVT. LVAYERVATG 360  
 CEF94-PP: ..... 360  
 D6948-PP: ..... 360  
 TY89-PP: ..... 360

CONSENSUS: SVVTVAGVSN FELIPNPELA KNLVTEYGRF DPGAMNYTKL ILSERDRLGI KTVWPTREYT 420  
 CEF94-PP: ..... 420  
 D6948-PP: ..... 420  
 TY89-PP: ..... 420

FIG. 4B

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CONSENSUS: DFREYFMEVA DLNSPLKIAG AFGFKDIIRA . RRIAVPVVS TLFPPAAPLA HAIGEGVDYL 480  
CEF94-PP: ..... I..... 480  
D6948-PP: ..... L..... 480  
TY89-PP: ..... . . . . .

CONSENSUS: LGDEAQQAASG TARAASGKAR AASGRIRQLT LAADKGYEVV ANLFQVPQNP VWDGILASPG 540  
CEF94-PP: ..... . . . . .  
D6948-PP: ..... . . . . .  
TY89-PP: ..... . . . . .

CONSENSUS: .LRGAHNLDL VLREGATLFP VITTEDAM TPKALNSKMF AVIEGVREDL OPPSQRGSFI 600  
CEF94-PP: V..... 600  
D6948-PP: I..... 600  
TY89-PP: ..... . . . . .

CONSENSUS: RTLSGHRVYGYAPDGWLPLE TGRDVTVPIDDVWDDSIMLSKDPPIPIVGNSGNLAIAYM 660  
CEF94-PP: ..... . . . . .  
D6948-PP: ..... . . . . .  
TY89-PP: ..... . . . . .

CONSENSUS: DVFRPKVPIH VAMTGALNA. GEIE.VSERS TKLATAHRIG LKLAGPAGFD VNTG.NWATF 720  
CEF94-PP: ..... C..... K..... P.....  
D6948-PP: ..... Y..... N..... S.....  
TY89-PP: ..... . . . . .

CONSENSUS: IKRPHNPRD WDRLPYLNLP YLPPNAGROY HLLAMAASEFK ETEPELESAVR AMEAAANVDP 780  
CEF94-PP: ..... . . . . .  
D6948-PP: ..... D..... . . . .  
TY89-PP: ..... T..... F..... L..... D..... D..... 58

CONSENSUS: LFQSALSVM WLEENGIVTD MANFALSDPN AHRMRNFLAN APOAGSKSQR AKYGTAGYGV 840  
CEF94-PP: ..... . . . . .  
D6948-PP: ..... . . . . .  
TY89-PP: ..... R..... Q..... K..... . . . . . 118

**FIG. 4C**

CONSENSUS:	EARGPTPEEA	QREKDTISK	KMETMGIYFA	TPEWVALNGH	RGPSPGQLKY	WQNTREIPDP	900
CEF94-PP:	.....	.....	.....	.....	.....	.....	900
D6948-PP:	.....	.....	.....	.....	.....	.....	900
TY89-PP:	.....	.....	.....	.....	.....	E.	178
CONSENSUS:	NEDYLDYVHA	EKSRLASEEQ	ILRAATSIYQ	APGQAEPQQA	FIDEVAKVYE	INHGRGPNQE	960
CEF94-PP:	.....	.....	.....	.....	.....	.....	960
D6948-PP:	.....	.....	.....	.....	.....	.....	960
TY89-PP:	.....	.....	V	.....	.....	R.	238
CONSENSUS:	OMKDLLTAM	EMKHNPNRRA	PPKPKPKPNA	PTQRPPGRLG	RWIRTVSDED	LE	1012
CEF94-PP:	.....	.....	L.	.....	.....	.....	1012
D6948-PP:	.....	.....	.....	.....	A.	.....	1012
TY89-PP:	.....	.....	.....	.....	S.	.....	290

FIG. 5A

CONSENSUS:	MSD.FNSPQA	RS.ISAAFGI	KPTAGQDVVE	LLIPKVVWPP	EDPLASPSRL	AKFLRENGYK	60	
CEF94-VP1:	I.....	T.....	.....	.....	.....	.....	60	
D6948-VP1:	V.....	K.....	.....	.....	.....	.....	60	
CONSENSUS:	.LQPRSLPEN	EEYETDQILP	DIAWMRQIEG	AVLKPTLSLP	IGDQEYFPKY	YPTHRSKEK	120	
CEF94-VP1:	V.....	.....	.....	.....	.....	.....	120	
D6948-VP1:	I.....	.....	.....	.....	.....	.....	120	
CONSENSUS:	PNAYPPDIAL	LKQMIYFLQ	VPEA...	LKD	EVLTQNIR	DKAYGSGTYM	GQATRIVAMK	180
CEF94-VP1:	.....	.....	.....	NEG	.....	.....	.....	180
D6948-VP1:	.....	.....	.....	TDN	.....	.....	.....	180
CONSENSUS:	EVATGRNPNK	DPLKLGYTTE	SIAQLLDITL	PVGPPGEDDK	PWVPLTRVPS	RMLVLTGDVD	240	
CEF94-VP1:	.....	.....	.....	.....	.....	.....	.....	240
D6948-VP1:	.....	.....	.....	.....	.....	.....	.....	240
CONSENSUS:	G.FEVEDYLP	KINLKSSSGL	PYVGRTKGET	IGEMIAISNQ	FLRELS.LLK	QGAGTKGSNK	300	
CEF94-VP1:	D.....	.....	.....	.....	.....	T.....	.....	300
D6948-VP1:	E.....	.....	.....	.....	.....	A.....	.....	300
CONSENSUS:	KKLLSMLSDY	WYLSCGLLFP	KAERYDKSTW	LTKTRNIWSA	PSPTHIMISM	ITWPVMSNSP	360	
CEF94-VP1:	.....	.....	.....	.....	.....	.....	.....	360
D6948-VP1:	.....	.....	.....	.....	.....	.....	.....	360
CONSENSUS:	NNVLNIEGCP	SLYKFNPERG	GLNRIVEWI	AP.EPKALVY	ADNIYTVHSN	TWYSIDLEKG	420	
CEF94-VP1:	.....	.....	.....	L.....	E.....	.....	.....	420
D6948-VP1:	.....	.....	.....	M.....	D.....	.....	.....	420
CONSENSUS:	EANCTRQHMQ	AAMYYILTRG	WSDNGDPMFN	QTWATFAMNI	APALVVDSSC	LIMNLQIKTY	480	
CEF94-VP1:	.....	.....	.....	.....	.....	.....	.....	480
D6948-VP1:	.....	.....	.....	.....	.....	.....	.....	480
CONSENSUS:	GQGSIGNAATF	INNHLLSTLV	LDQWNLM.QP	.PDSEEFKSI	EDKLGINFKI	ERSIDDIRGK	540	
CEF94-VP1:	.....	.....	.....	R.....	R.....	.....	.....	540
D6948-VP1:	.....	.....	.....	K.....	S.....	.....	.....	540

**FIG. 5B**

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Proposed Amendment  
Reply to Form PTO-948 dated 7/25/02  
**REPLACEMENT SHEET**

CONSENSUS: LRQLV.LAQP GYLSGGVEPE Q.SPTVELDL LGWSATYSKD LGIYVPVLDK ERLFCSAAYP	600
CEF94-VP1: .....L.....S.....	600
D6948-VP1: .....P.....P.....	600
CONSENSUS: KGVENKSLKS RVGIEQAYKV VRYEARLKV GWNYPLLNKA CRNNAAARR HLEAKGFLD	660
CEF94-VP1: .....G.....G.....	660
D6948-VP1: .....S.....S.....	660
CONSENSUS: EFLAEWSELS EFGEAFFEGFN IKLTVT.ESL AELN.PVPPK PPNVNRPVNT GGLKAVSNAL	720
CEF94-VP1: .....S.....K.....	720
D6948-VP1: .....P.....R.....	720
CONSENSUS: KTGRYRNEAG LSGLVLLATA RSRLQDAVKA KAEAEKLHKS KPDDPDADWF ERSETLSDL	780
CEF94-VP1: .....P.....P.....	780
D6948-VP1: .....P.....P.....	780
CONSENSUS: EKADIASKVA HSALVETSDA LEAVQSTSYY TPKYPEVKNP QTASNPVVGL HLPAKRATGV	840
CEF94-VP1: .....P.....P.....	840
D6948-VP1: .....P.....P.....	840
CONSENSUS: QAALLGAGTS RPMGMEAPTR SKNAVMAKR RQRQKESRQ.	881
CEF94-VP1: .....Q.....Q.....	881
D6948-VP1: .....P.....P.....	879

FIG. 6

CONSENSUS:	MVSRDQTNDR	SDD.PARSNP	TDCSVHTEPS	DANNRTGVHS	GRHP.EAHSQ	VRDLQLQFDC	60
D6948-VP5:	.....	E.....	.....	.....	.....R	.....	60
CEF94-VP5:	.....	K.....	.....	.....	.....G	.....	60
CONSENSUS:	GGHVRVANCL	FPW.PWLNCGG	CSLHTAEQWE	LQVRSdapDC	PEPTGQLQLL	QASESESHSE	120
D6948-VP5:	.....	F.....	.....	.....	.....	.....	120
CEF94-VP5:	.....	I.....	.....	.....	.....	.....	120
CONSENSUS:	VKHT.WWRIC	TK.HHKRRDL	PRKPE				145
D6948-VP5:	.....	P.....	.....	.....W	.....	.....	145
CEF94-VP5:	.....	S.....	.....	.....R	.....	.....	145

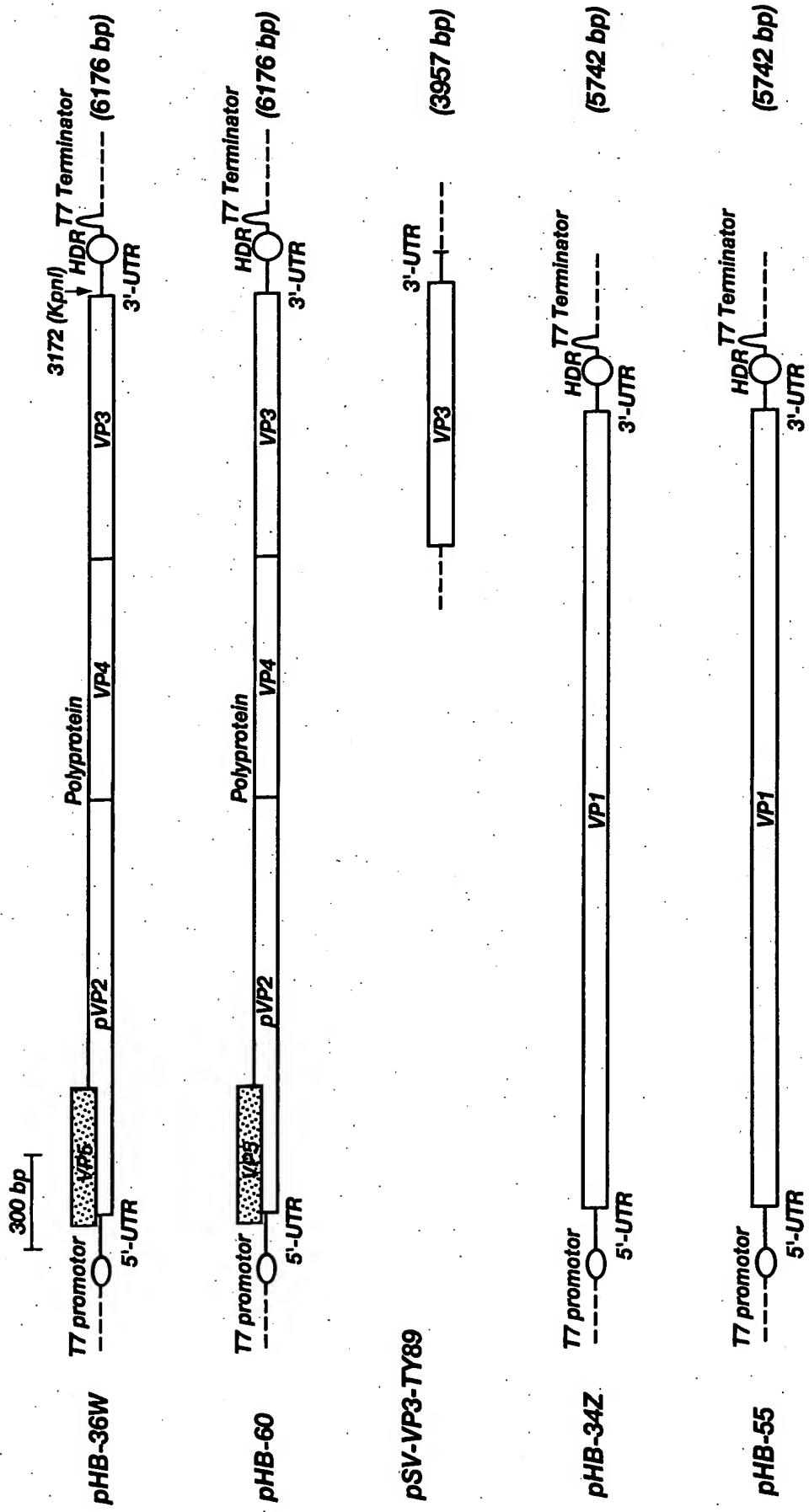
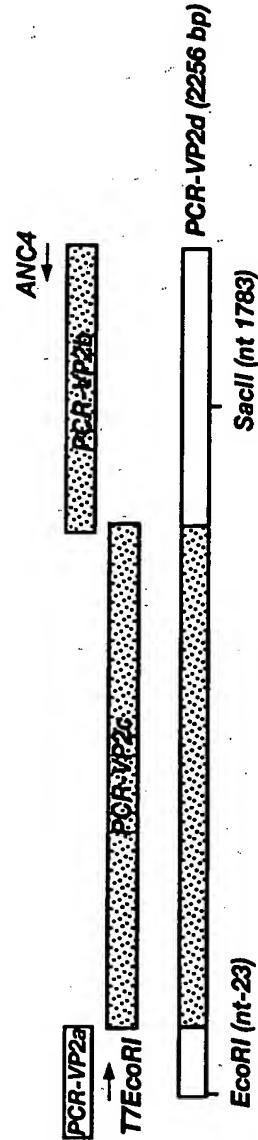
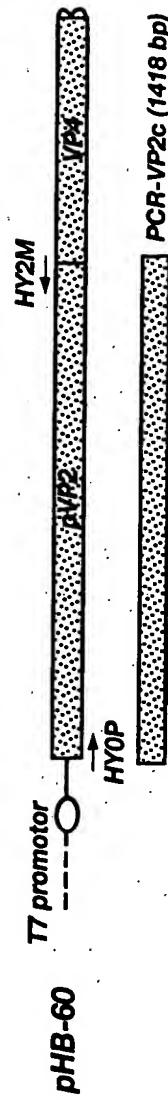
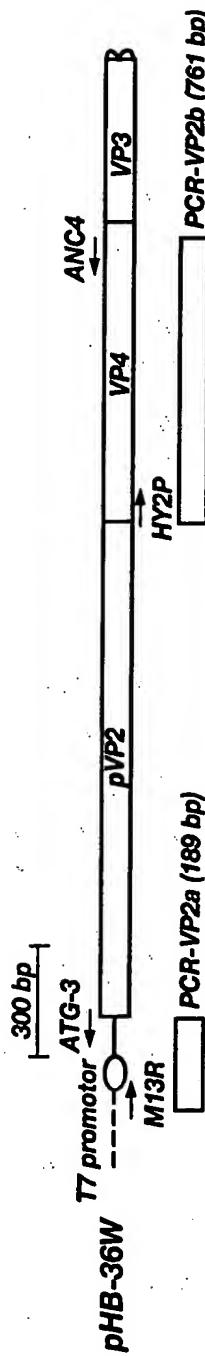


FIG. 7



**F/G. 8A**

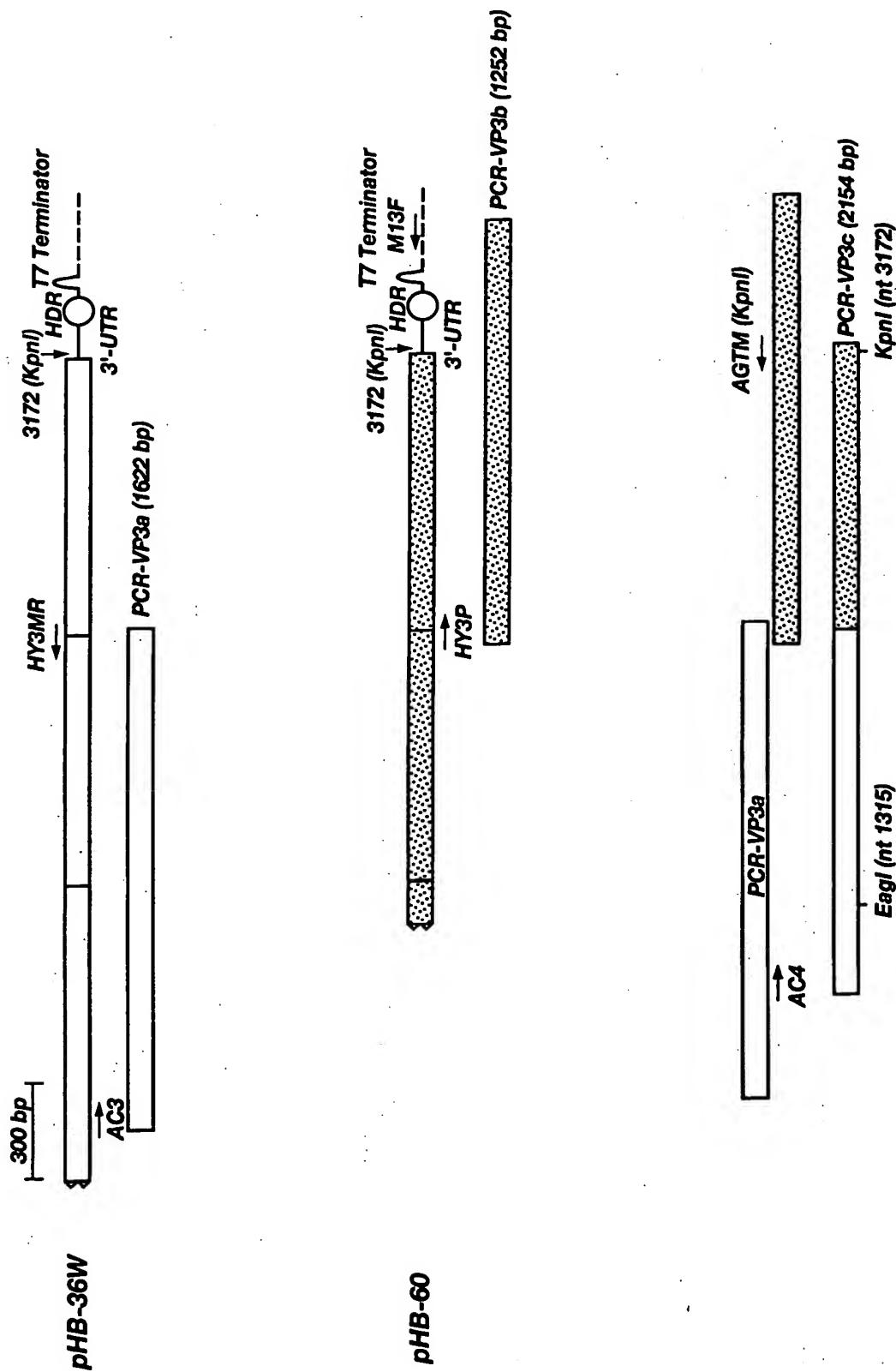


FIG. 8B

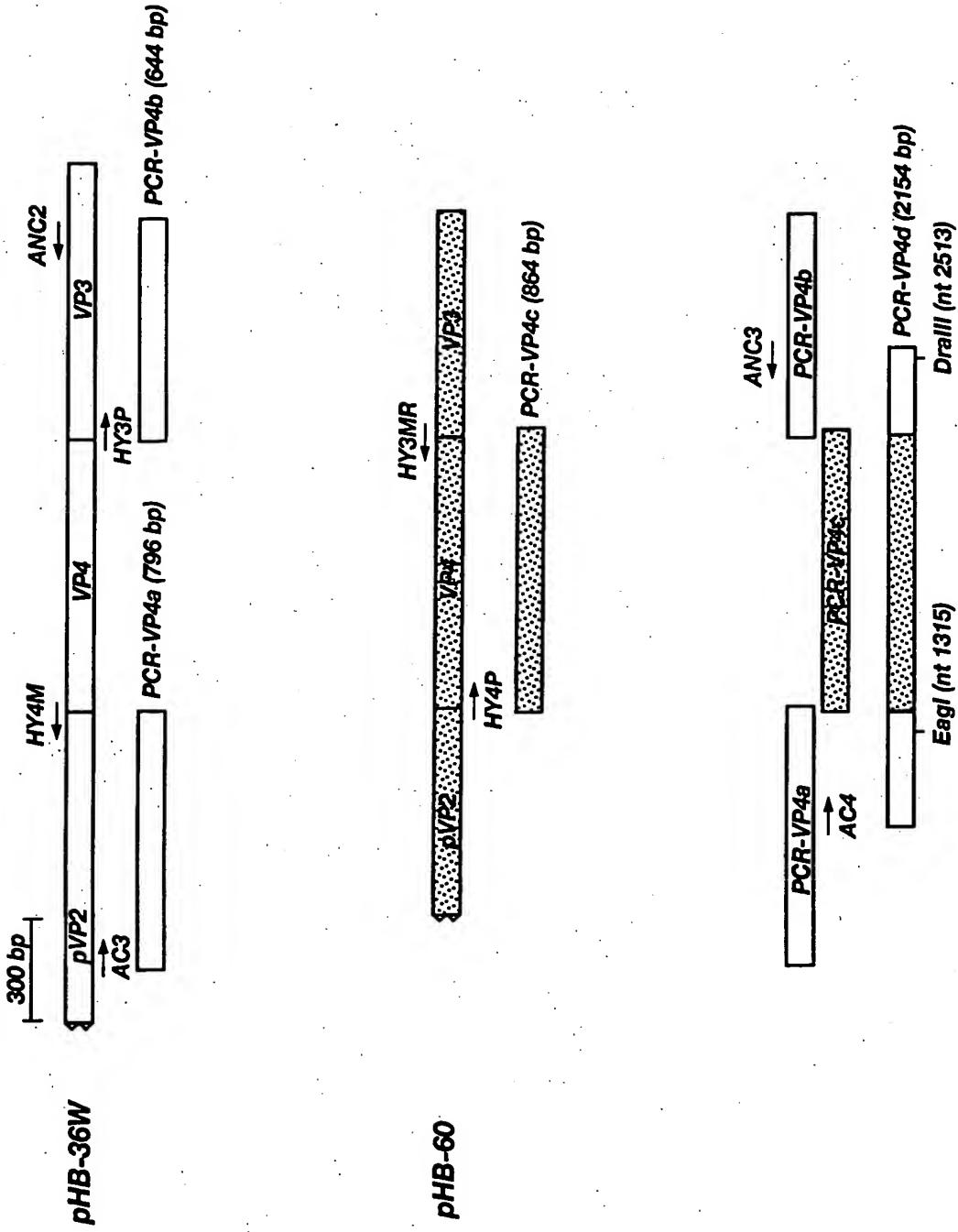


FIG. 8C

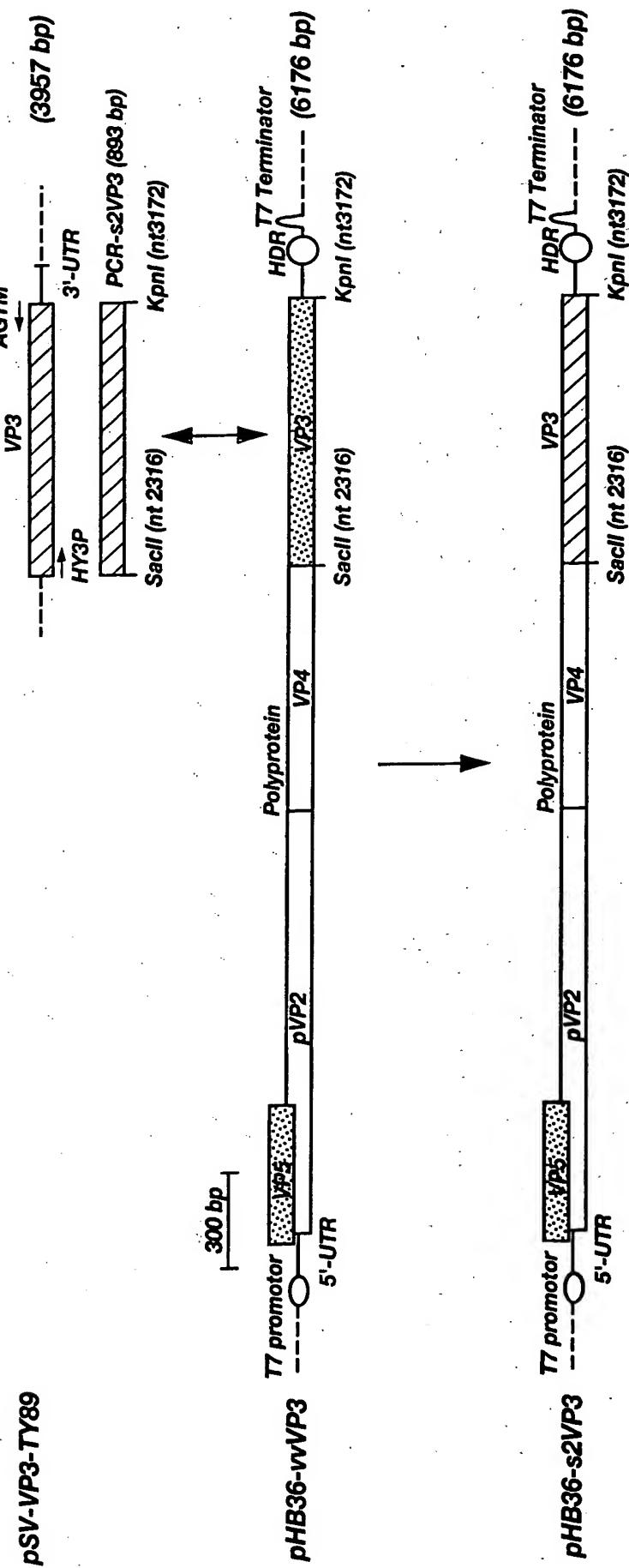


FIG. 8D

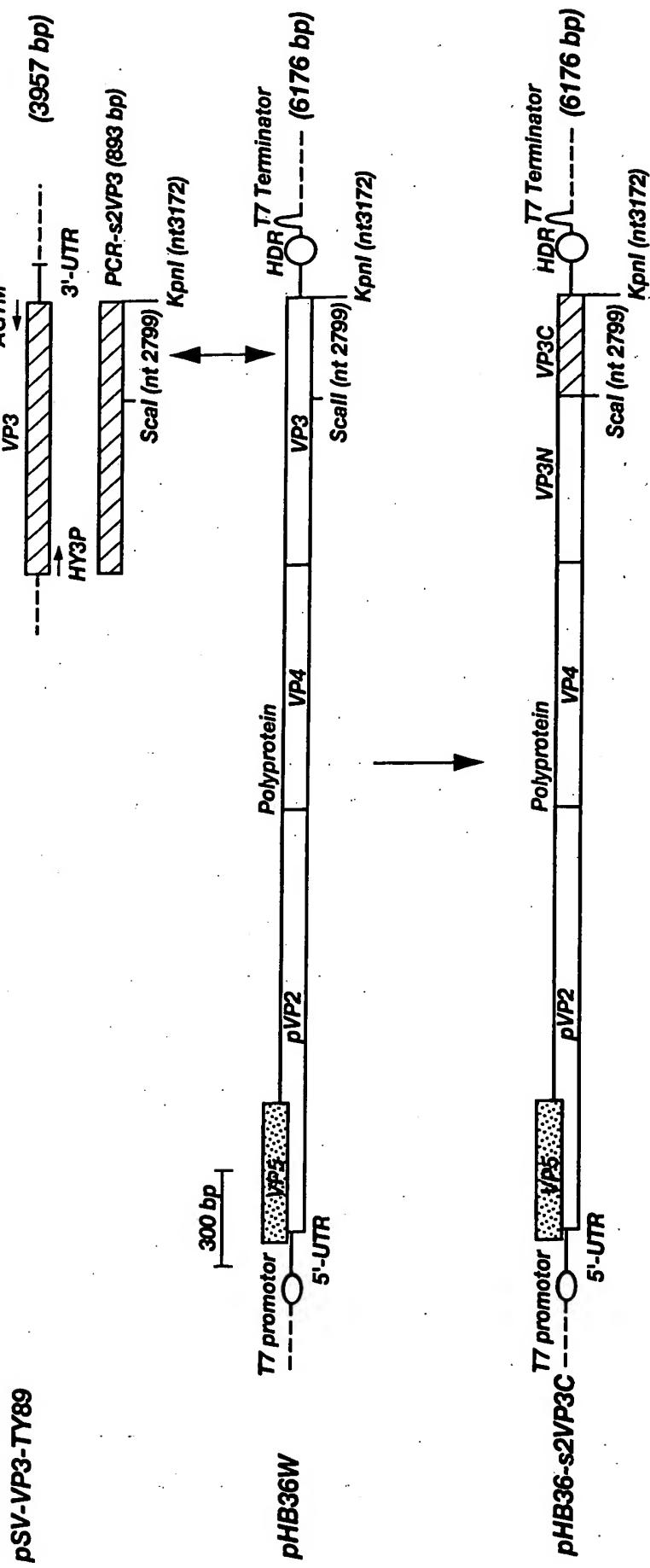


FIG. 8E

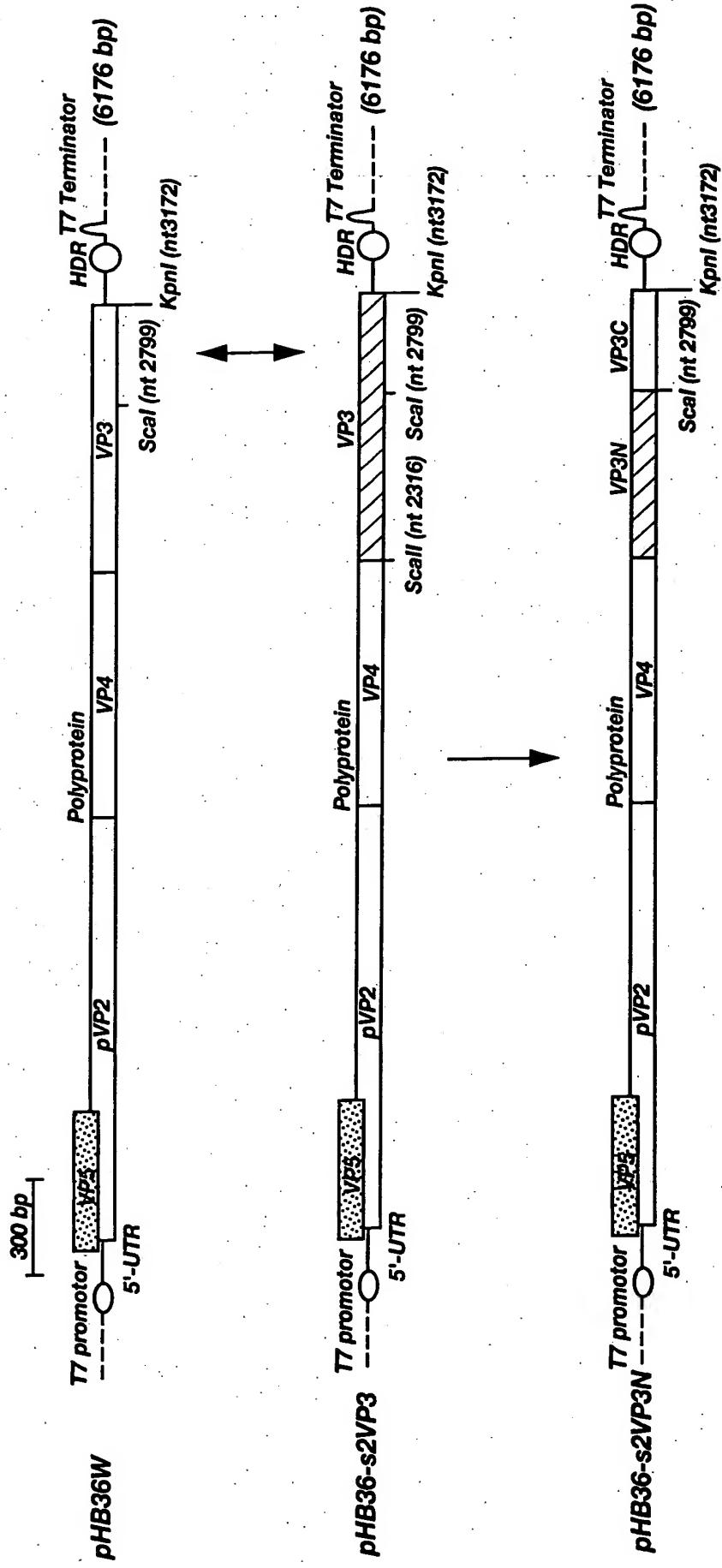


FIG. 8F

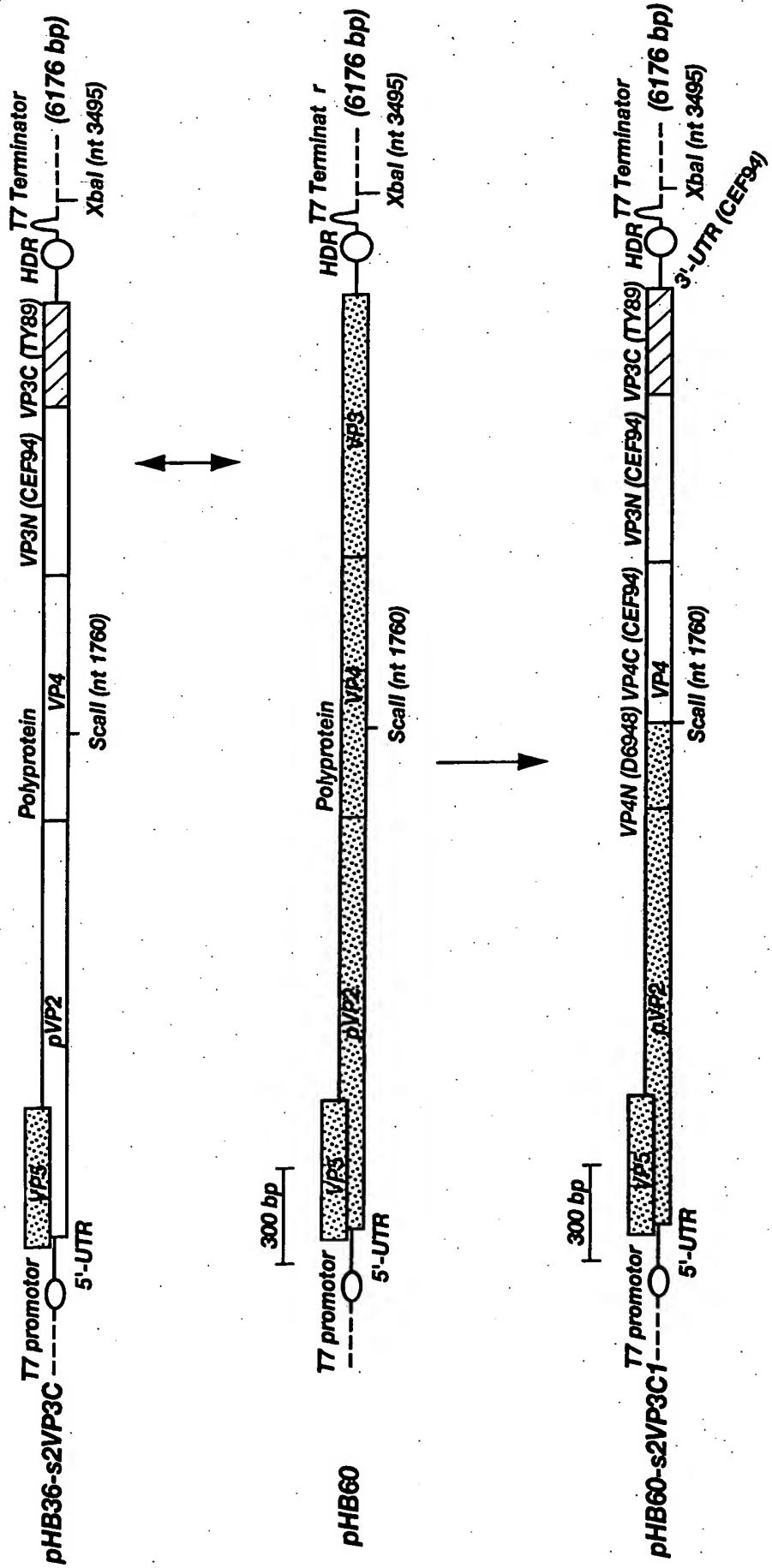


FIG. 8G

FIG. 9

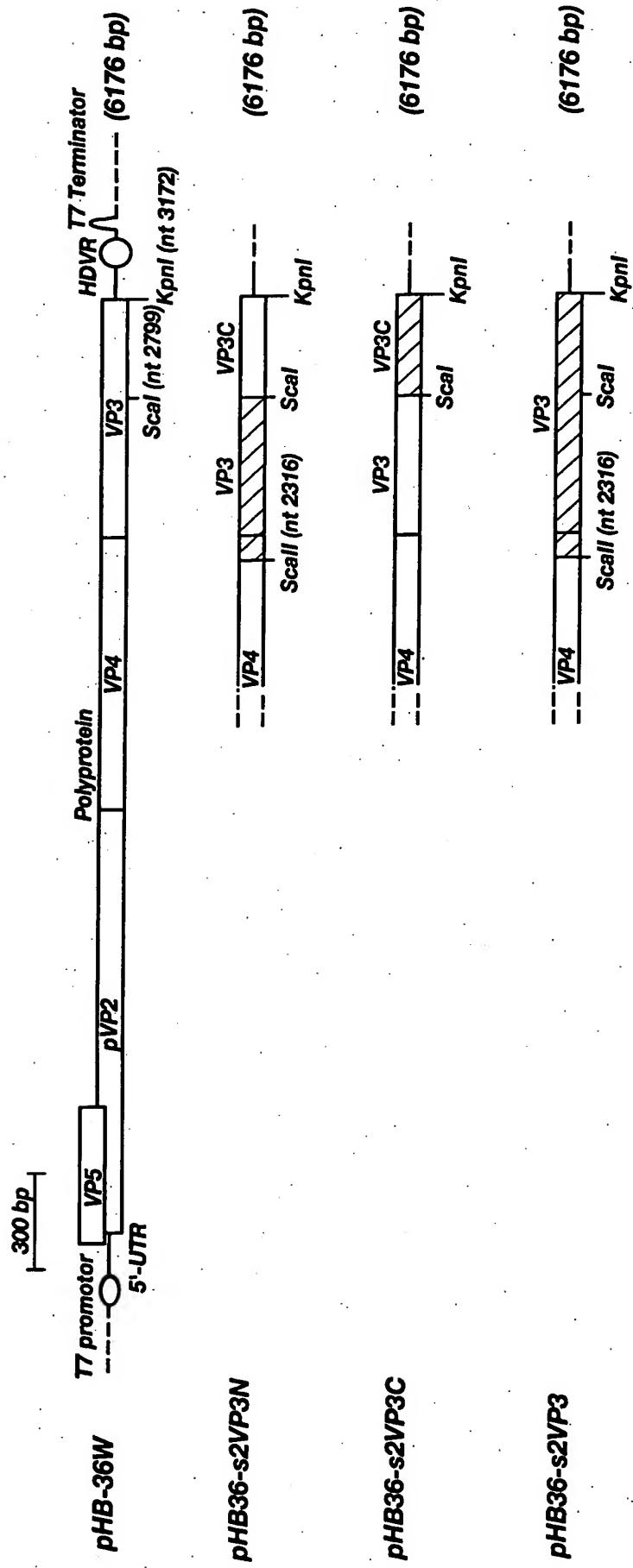
VP4  $\leftrightarrow$  VP3

SacII

CEF94-PP: LFQSALSVM WLEENGIVTD MANFALSDPN AHRMRNFLAN APQAGSKSQR AKYGTAGYGV 840  
 TY89-PP: .R...Q.....K..... 840

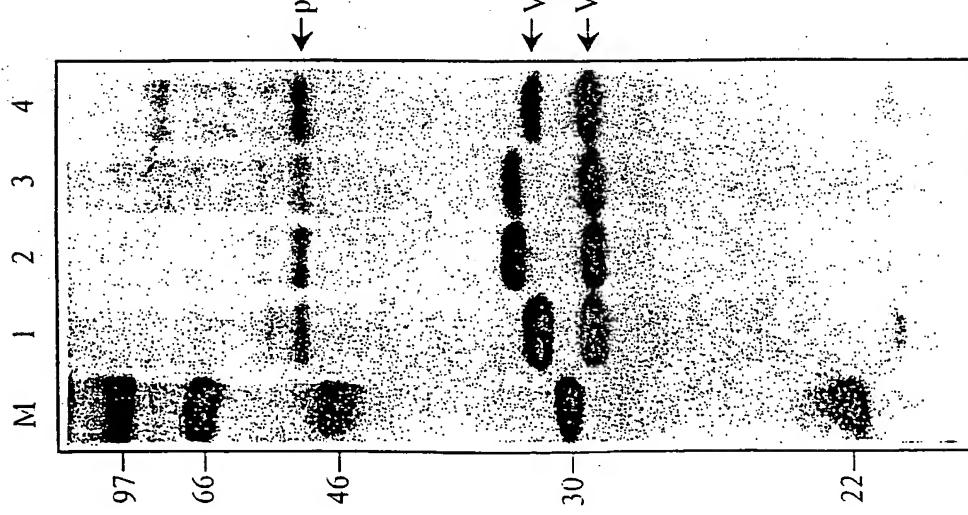
CEF94-PP: EARGPTPEEA QREKDTISK KMETMGIYA TPEWVALNGH RGSPSPGQLKY . WQNTREIPDP 900  
TY89-PP: ..... E: 200  
Saci

CEF94-PP: QMKDLLITAM EMKHNPRRA LPKPKPKPNA PTQRPPGRLG RWIRTVSDED LE  
TY89-PP: ..... P..... S.....

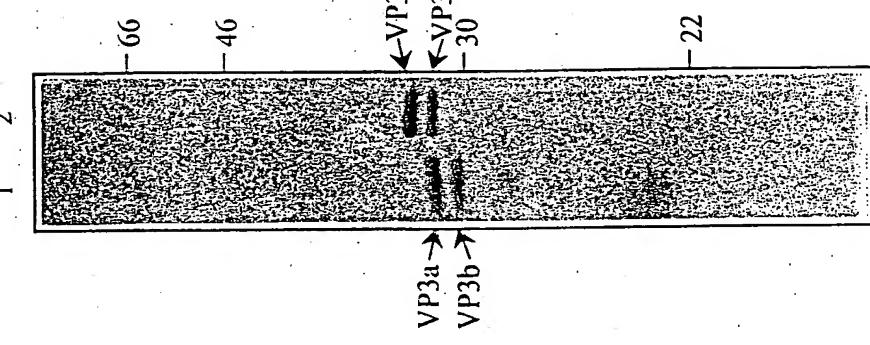


**FIG. 10**

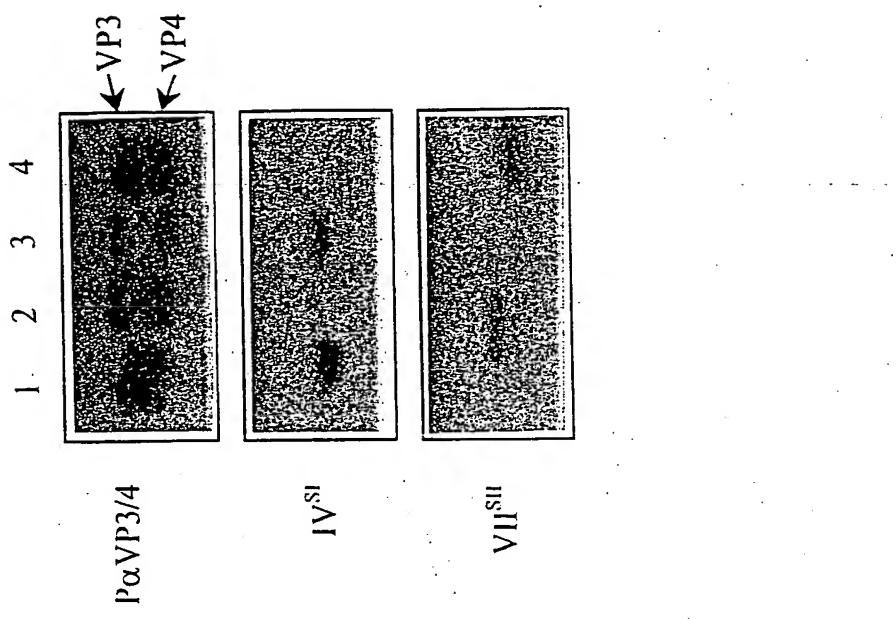
**FIG. 11A**



**FIG. 11B**



**FIG. 11C**



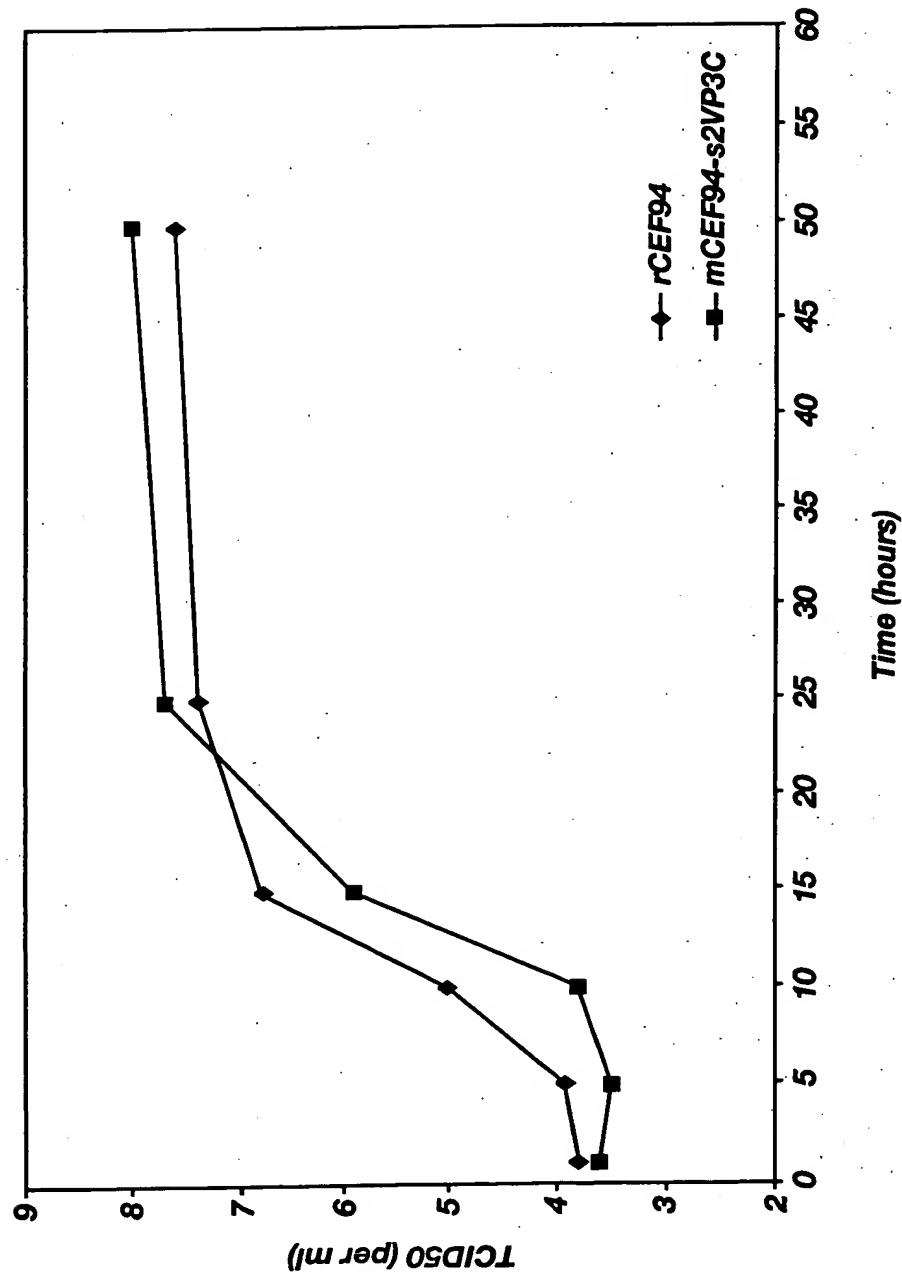
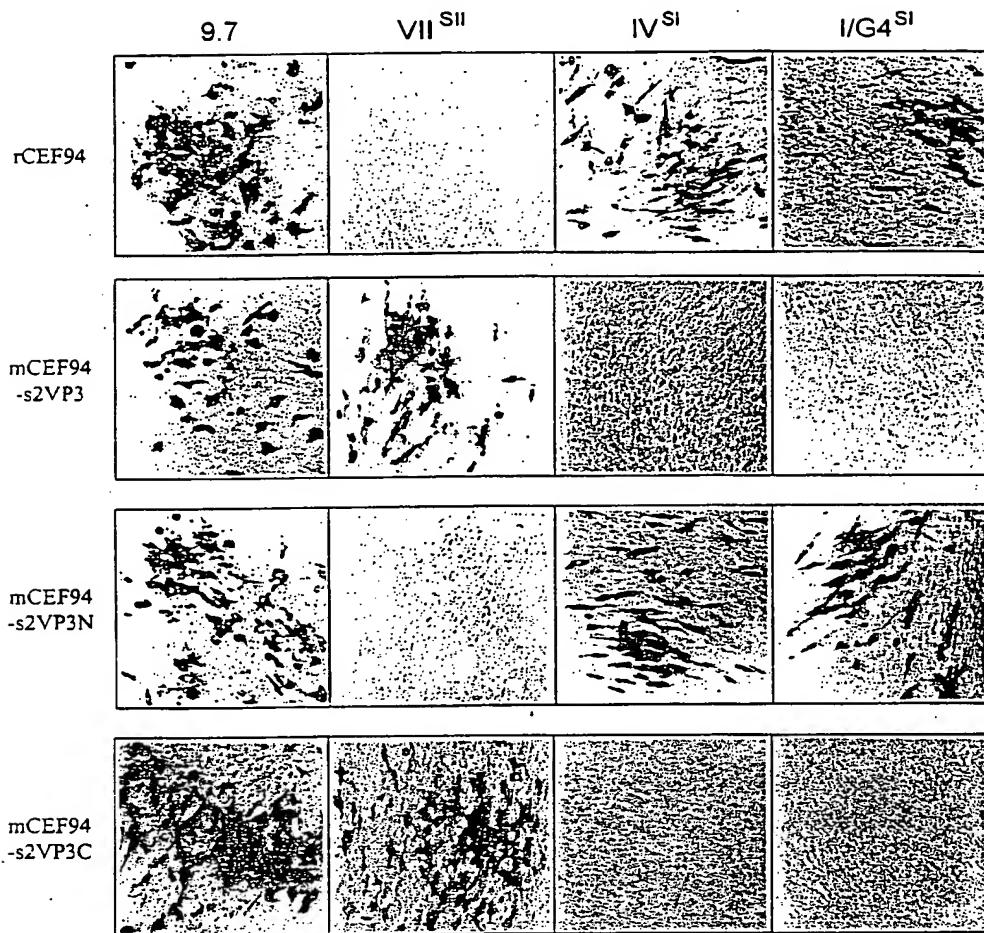


FIG. 12

# FIG. 13



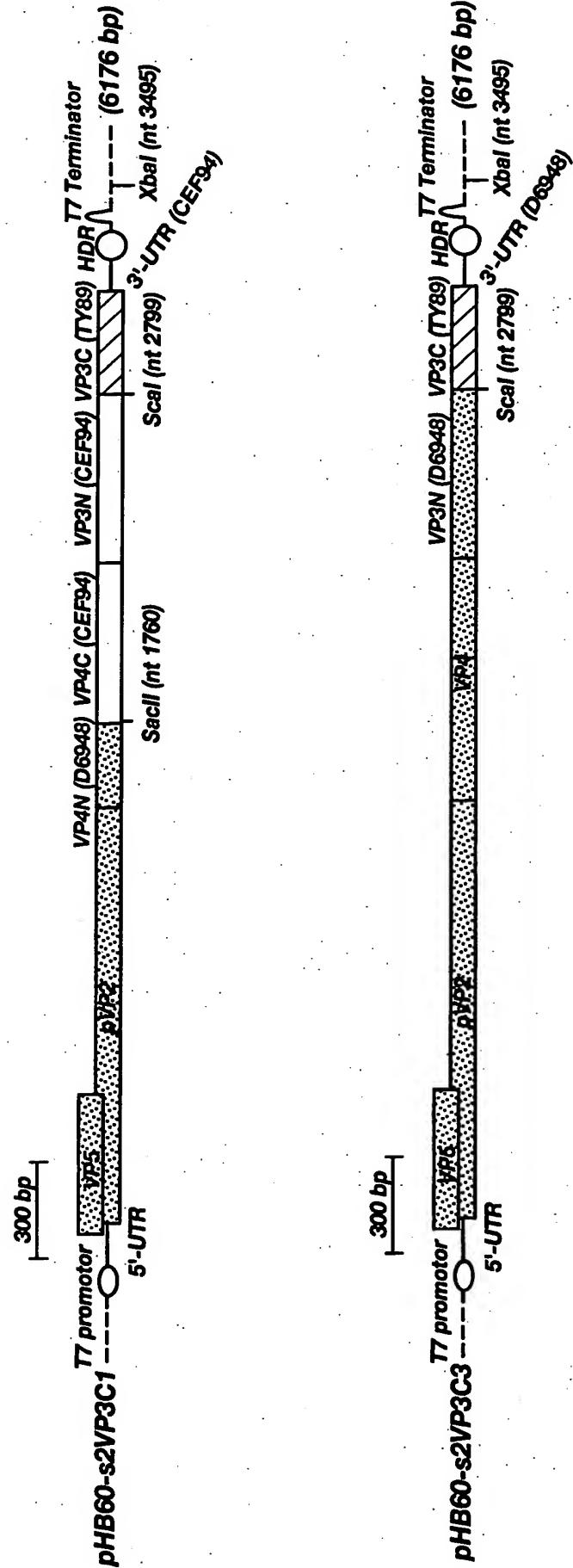


FIG. 14

**FIG. 15**

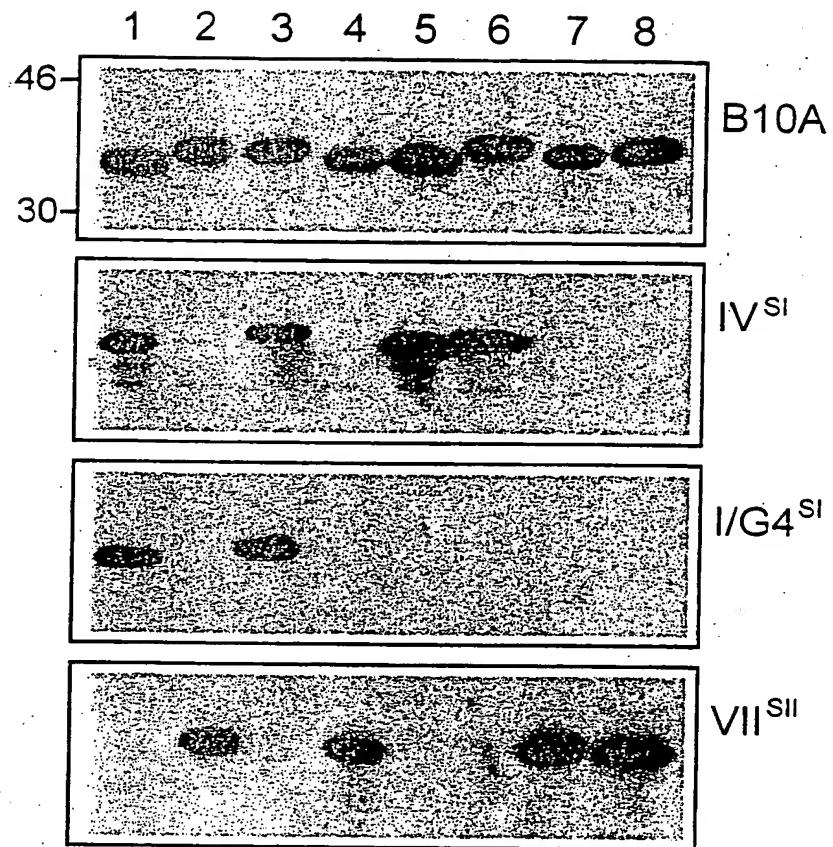


FIG. 16

VP4 ← VP3

Sac II

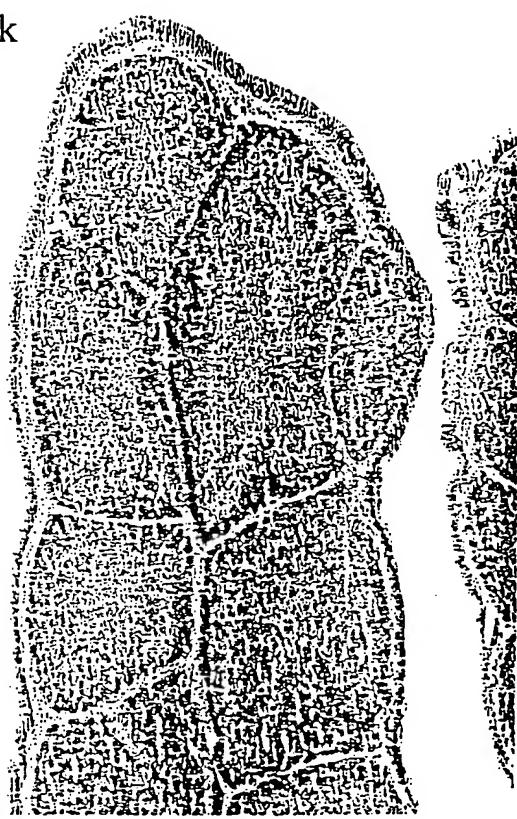
Sac I

CEF94-PP: EARGPTPEEA QREKDTRISK KMETMGIYFA TPEWVALNGH RGSPGQLKY WQNTREIIPDP 900  
D6948: ..... 900  
TY89-PP: ..... E. 900

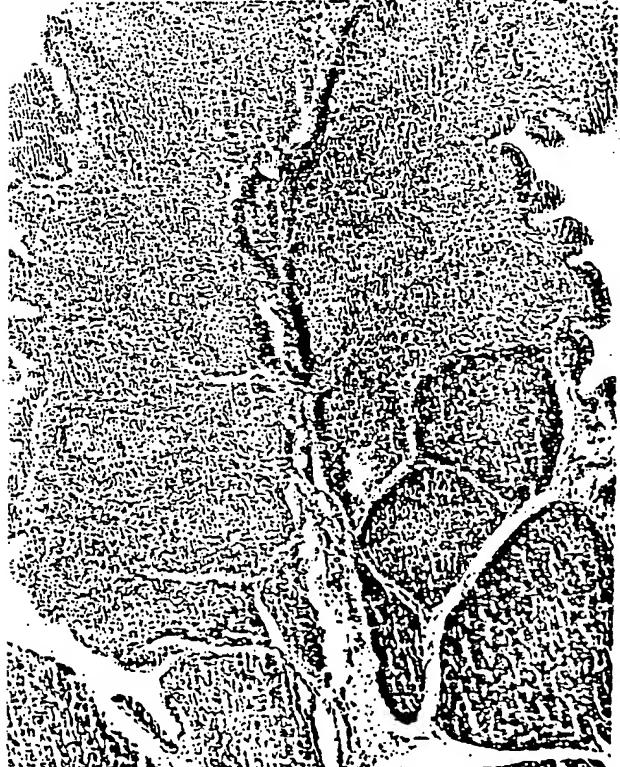
CE94-PP:	QMKDLILLTAM	EMKHRNPRRA	LPKPKPKPNA	PTQRPPGRLG	RWIRTVSDED	LE	1012
D6948:	.....	.....	.....	.....	.....	A.....	1012
TY89-PP:	.....	.....	.....	.....	.....	S.....	1012

**FIG. 17**

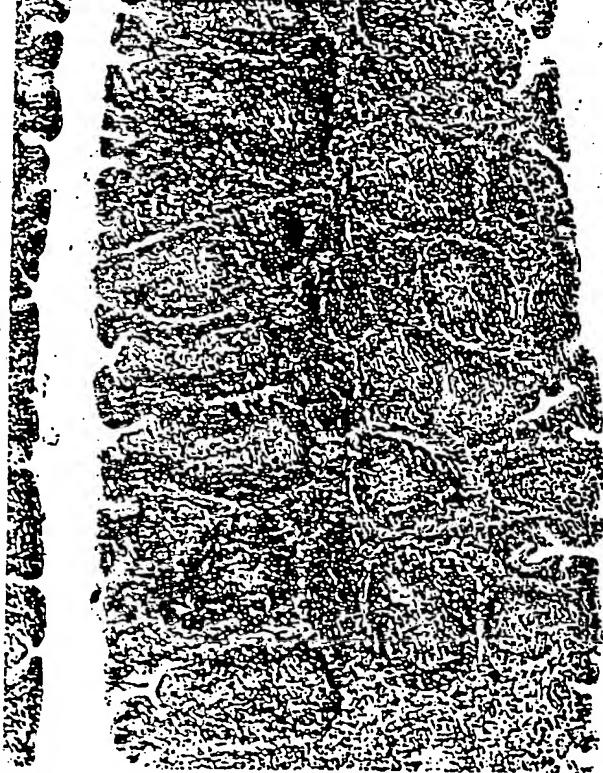
Mock

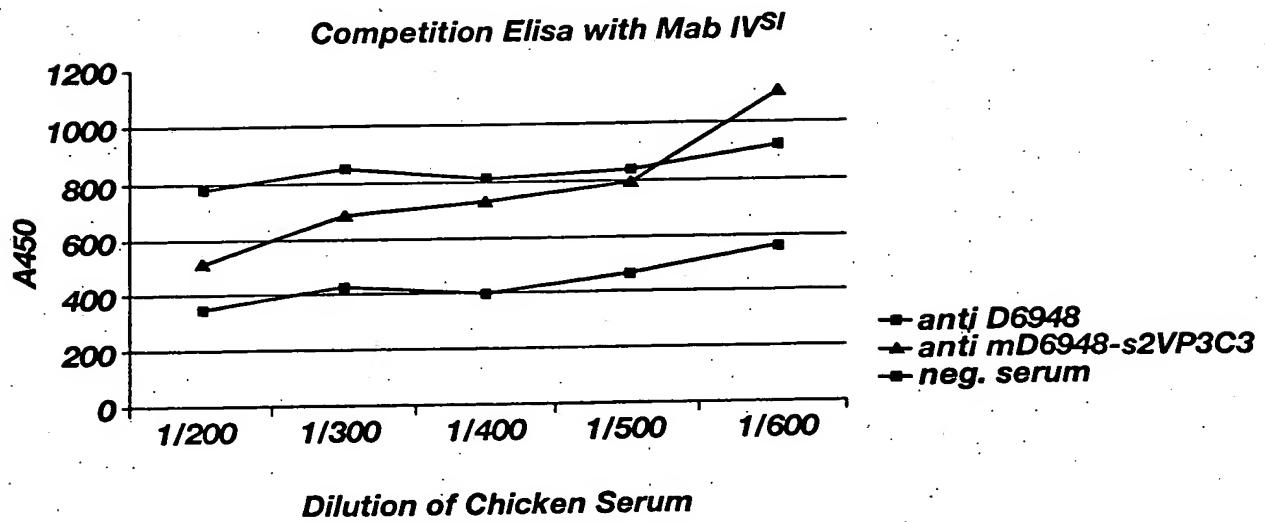
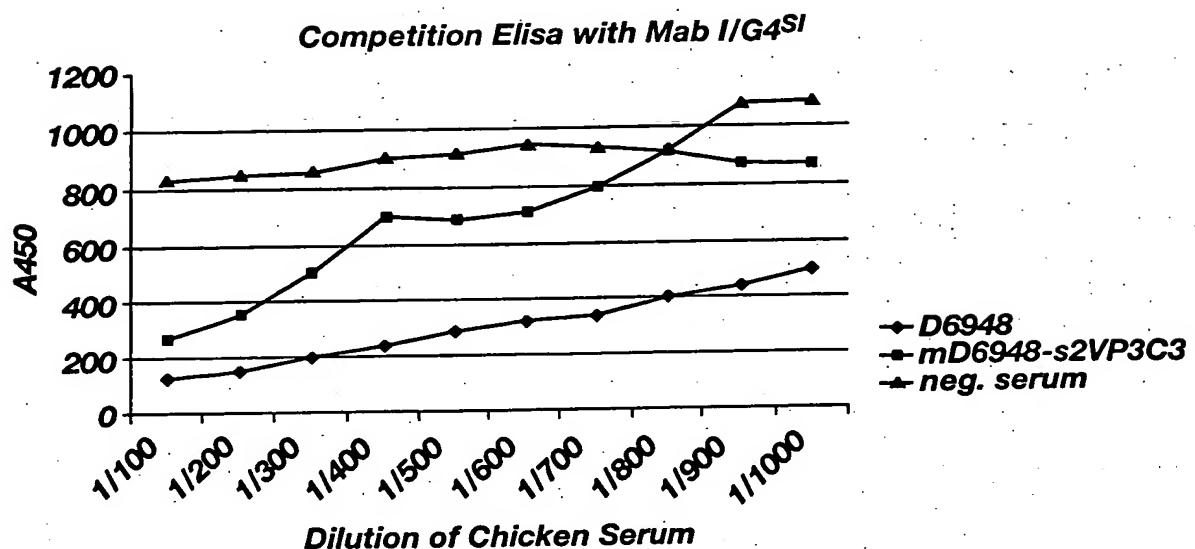


mD6948-s2VP3C1



mD6948-s2VP3C3





**FIG. 18**

**FIG. 19**

D6948-VP5: MLSIMVSRDQ TNDRSDDDEPA RSNPTDCSVH TEPSDANNRT GVHSGRHPRE AHSQVRDSDL 60  
CEF94-VP5: .....K.....G.....56

D6948-VP5: QFDGGHHRVR ANCLEPPWEPW LNCGCSLHTA EQWELOVRSRSD APDCPEPTGQ LQLQASESE 120  
CEF94-VP5: .....I.....116

D6948-VP5: SHSEVKHTPW WRLCTKWHHK RRDLLPRKPE  
CEF94-VP5: .....S.....R.....145

149

## FIG. 20A

D6948-PP:	MTNLQDQTQQ IVPPFIRSLM PTTGPASIPD DTLEKHTLRS ETSTYNLTVG DTGSGLIVFF 60
CEF94-PP:	..... 60
D6948-PP:	PGFPGSIVGA HYTLQSNGNY KFDQMLITAQ NLPASNYCR LVSRSLTVRS STLPGGVYAL 120
CEF94-PP:	..... 120
D6948-PP:	NGTINAVTFQ GSLSELTDVS YNGLMSATAN INDKIGNVLV GEGTVLSLP TSYDLGYVRL 180
CEF94-PP:	..... 180
D6948-PP:	GDPIPAIGLD PKMVATCDSS DRPRVYTITA ADDYQFSSQY QAGGVTTLF SANIDAITSL 240
CEF94-PP:	..... P..... 240
D6948-PP:	SIGGELVfqT SVQGLLIGAT IYLIGFDGTA VITRAVAADN GLTAGTDNLM PFNIVIPTSE 300
CEF94-PP:	.V..... H..V..... N..... N..... T..... L..... N..... 300
D6948-PP:	ITQPITSIKL EIVTSKSGGQ AGDQMSWSAS GSLAVTIHGG NYPGALRPVT LVAYERVATG 360
CEF94-PP:	..... R..... 360
D6948-PP:	SVVTVAGVSN FELIPNPELA KNLVTEYGRF DPGAMNYTKL ILSERDRLGI KTVWPTREYT 420
CEF94-PP:	..... 420
D6948-PP:	DFREYFMEVA DLNSPLKIAG AFGFKDIIRA LRRIAVPVVS TLFPPAAPIA HAIGEGVDYL 480
CEF94-PP:	..... I..... 480
D6948-PP:	LGDEAQQAASG TARAASGKAR AASGRIROLT LAADKGYEVV ANLFOVQPNP VVDGILASPQ 540
CEF94-PP:	..... 540
D6948-PP:	ILRGAHNIDC VLREGATLFP VVITVEDAM TPKALNSKMF AVIEGVREDL QPPSQRGSFI 600
CEF94-PP:	..... 600
D6948-PP:	RTLSGHRVYGC YAPDGVLPIE TGRDVTVPPI DDVWDDDSIML SKDPIPPIVG NSGNLAIAYM 660
CEF94-PP:	..... 660
D6948-PP:	DVERPKVPIH VAMTGALNAY GEIENVSFRS TKLATAHRLG LKLAGPGAFD VNTGGSNWATE 720
CEF94-PP:	..... C..... K..... P..... 720

## FIG. 20B

D6948-PP:	<u>IKRFPHNPRD</u>	WDRLPYLNLP	YLPPNAGROY	DLAMAASEEK	ETPELESAVR	AMEAAANVDP	780
CEF94-PP:	.....	.....	.....	.....	.....	.....	780
H.....							
D6948-PP:	LFQSALSVM	WLENGIVTD	MANFALSDPN	AHRMRNFLAN	APQAGSKSQR	ARYGTAGYGV	840
CEF94-PP:	.....	.....	.....	.....	.....	.....	840
.....							
D6948-PP:	EARGPTPEEA	QREKDTRISK	KMETMGIYFA	TPEWVALNGH	RGPSPGQLKY	WQNTREIPDP	900
CEF94-PP:	.....	.....	.....	.....	.....	.....	900
.....							
D6948-PP:	NEDYLDYVHA	EKSRLASEEQ	ILRATSIYG	APGQAEPQQA	FIDEVAKVYE	INHGRGPNQE	960
CEF94-PP:	.....	.....	.....	.....	.....	.....	960
.....							
D6948-PP:	QMKDLLTAM	EMKHRNPRRA	PPKPKPKPNA	PTQRPPGRLG	RWIRAVSDED	LE	1012
CEF94-PP:	.....	.....	.....	.....	.....	.....	1012
L.....T.....							

## FIG. 21A

D6948-VP1:	MSDVFNSPQA RSKISAAFGI KPTAGQDVEE LLIPKVVWPP EDPLASPSRL AKFLRENGYK	60
CEF94-VP1:	...I.....T.....	60
D6948-VP1:	ILQPRSLPEN EEXETDQILP DIAWMRQIEG AVLKPTLSLP IGDQEYFFPKY YPTHRSKEK	120
CEF94-VP1:	V.....	120
D6948-VP1:	PNAYPPDIAL LKQMIYFLQ VPEATDNLKD EVTLLTQNIR DKAYGSGTYM GOATRLVAMK	180
CEF94-VP1:	...NEG.....	180
D6948-VP1:	EVATGRNPNK DPLKLGYTFE SIAQLLDITL PVGPPGEDDK PWVPLTRVPS RMLVLTGDVD	240
CEF94-VP1:	.....	240
D6948-VP1:	GEFEVEDYLP KINLKSSGL PYVGRTKGET IGEMIAISNQ FIRELSALK QGAGTKGSNK	300
CEF94-VP1:	D.....	300
D6948-VP1:	KKLLSMLSVDY WYLSCLLFP KAERYDKSTW LTKTRNIWSA PSPTHLMISM ITWPVMSNSP	360
CEF94-VP1:	.....	360
D6948-VP1:	NNVLNIEGCP SLYKENPFRG GLNRIVEWIM APDEPKALVY ADNIYIVHSN TWYSIDLERK	420
CEF94-VP1:	.....L.....E.....	420
D6948-VP1:	EANCTRQHMQ AMYYILTRG WSDNGDPMFN QTWATFAMNI APALVVDSSC LIMNLQIKTY	480
CEF94-VP1:	.....	480
D6948-VP1:	GQGSGNAATF INNHLSTLV LDQWNLMKOP SPDSEEFKSI EDKLGINFKI ERSIDDIRGK	540
CEF94-VP1:	.....R.....R.....	540
D6948-VP1:	LRQLVPLAQP GYLSGGVEPE QPSPTVELDL LGWSATYSKD LGIYVPVLDK ERLFCSAAYP	600
CEF94-VP1:	.....L.....S.....	600
D6948-VP1:	KGVENKSLKS KVGLQAYKV VRYEARLVG GWNYPLLNKA CKNNASAARR HLEAKGFPILD	660
CEF94-VP1:	.....G.....	660
D6948-VP1:	EFLAEWSELS EFGEAFFEGFN IKLTVTPESL AELNRPVPPK PPNVNRPVNT GGLKAVSNAL	720
CEF94-VP1:	.....S.....K.....	720

Serial No. 10/046,671; Filed 1/14/2002  
Proposed Amendment  
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**REPLACEMENT SHEET**

FIG. 21B

D6948-VP1:	KTGRYRNEAG LSGLVLLATA RSRLQDAVKA KAEAEKLHKS	KPDDPDADWF ERSETLSDL	780
CEF94-VP1:	.....	.....	780
.....	.....	.....	.....
D6948-VP1:	EKADIASKVA HSALVETSDA LEAVQSTSVY TPKYPEVKNP	QTASNPVVGL HLPAKRATGV	840
CEF94-VP1:	.....	.....	840
.....	.....	.....	.....
D6948-VP1:	QAALLGAGTS RPMGMEAPTR SKNAVKMARR	RQRQRESRQ-	879
CEF94-VP1:	.....	.....	881
.....	.....	.....	.....

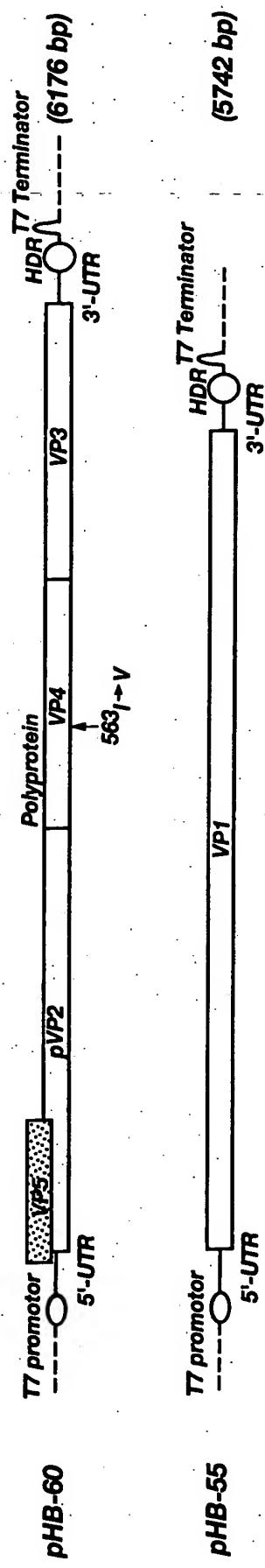
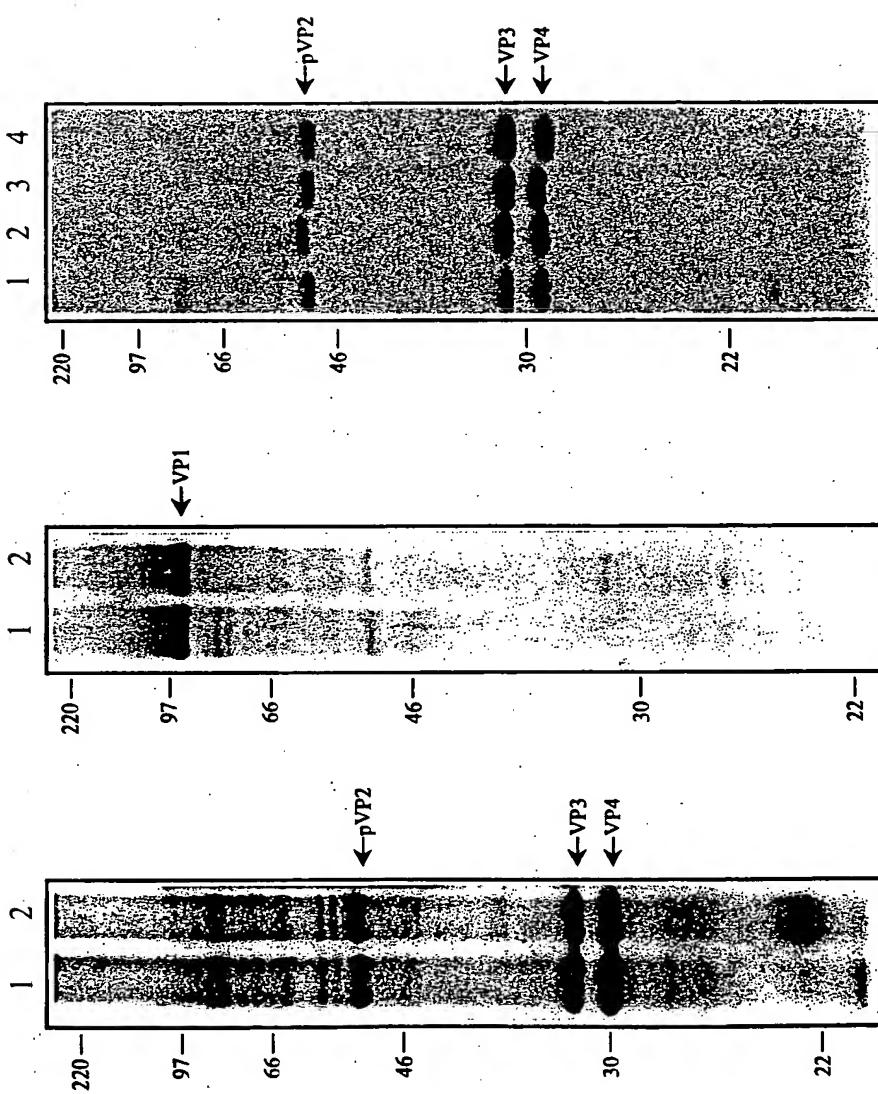
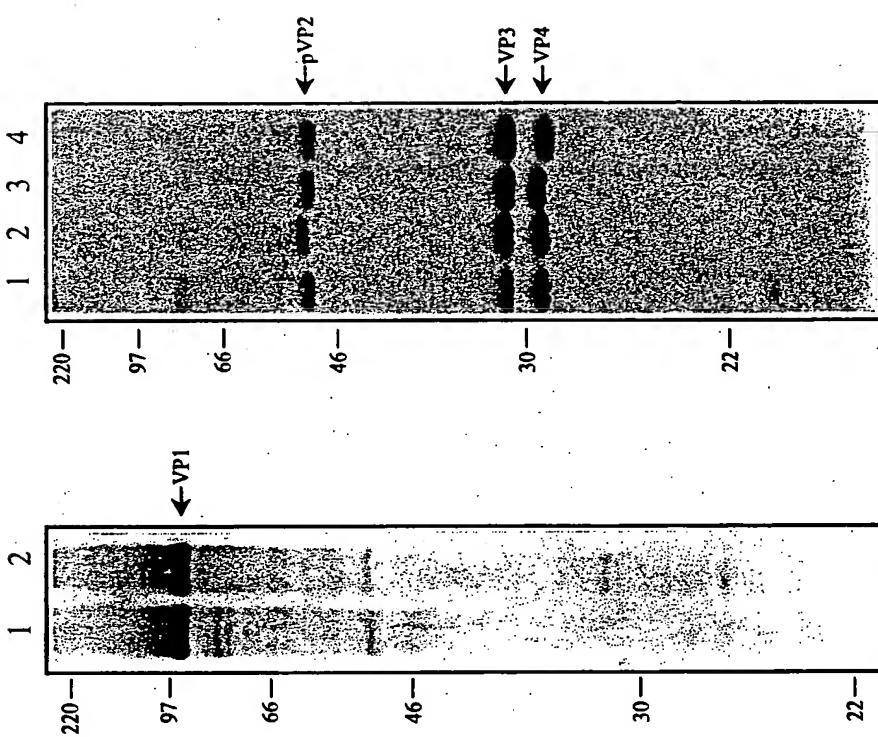


FIG. 22

**FIG. 23A**



**FIG. 23B**



**FIG. 23C**

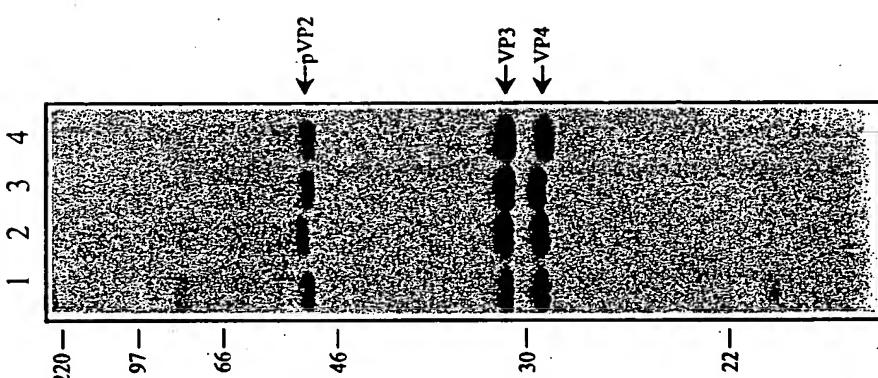


FIG. 24

## Bursa cells

QM5 cells

The image consists of a 3x3 grid of nine electron micrographs. Each panel shows a different view of biological structures, possibly microtubules or similar filaments, in cross-section or longitudinal view. The structures are represented by dark, irregular shapes against a lighter background. The panels show various patterns of alignment and density, with some panels featuring prominent diagonal or radial lines. The overall appearance is grainy and scientific, typical of early electron microscopy images.

rD4948

rCEF94

sr|BDV-DACB

Sr|BDV-CADB

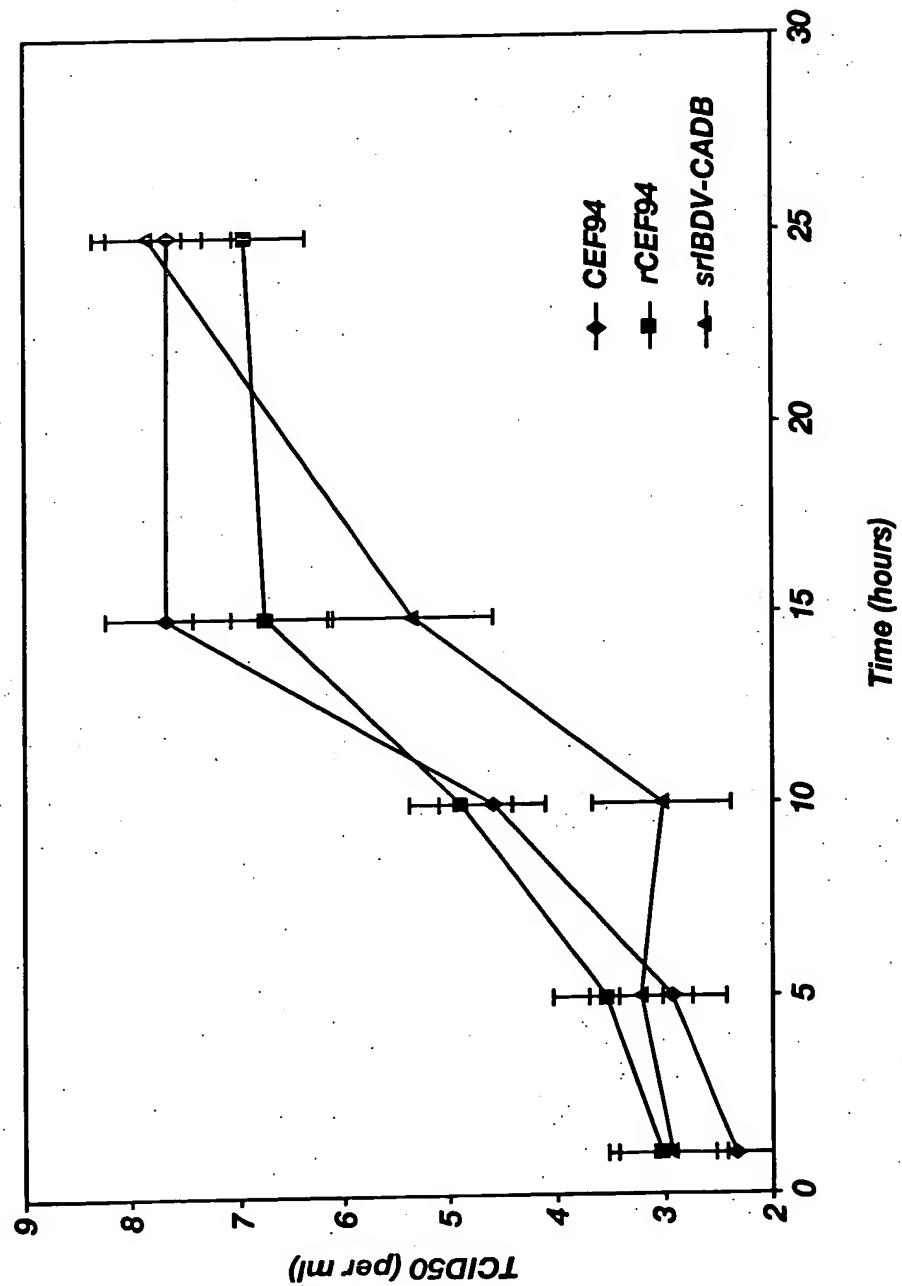


FIG. 25

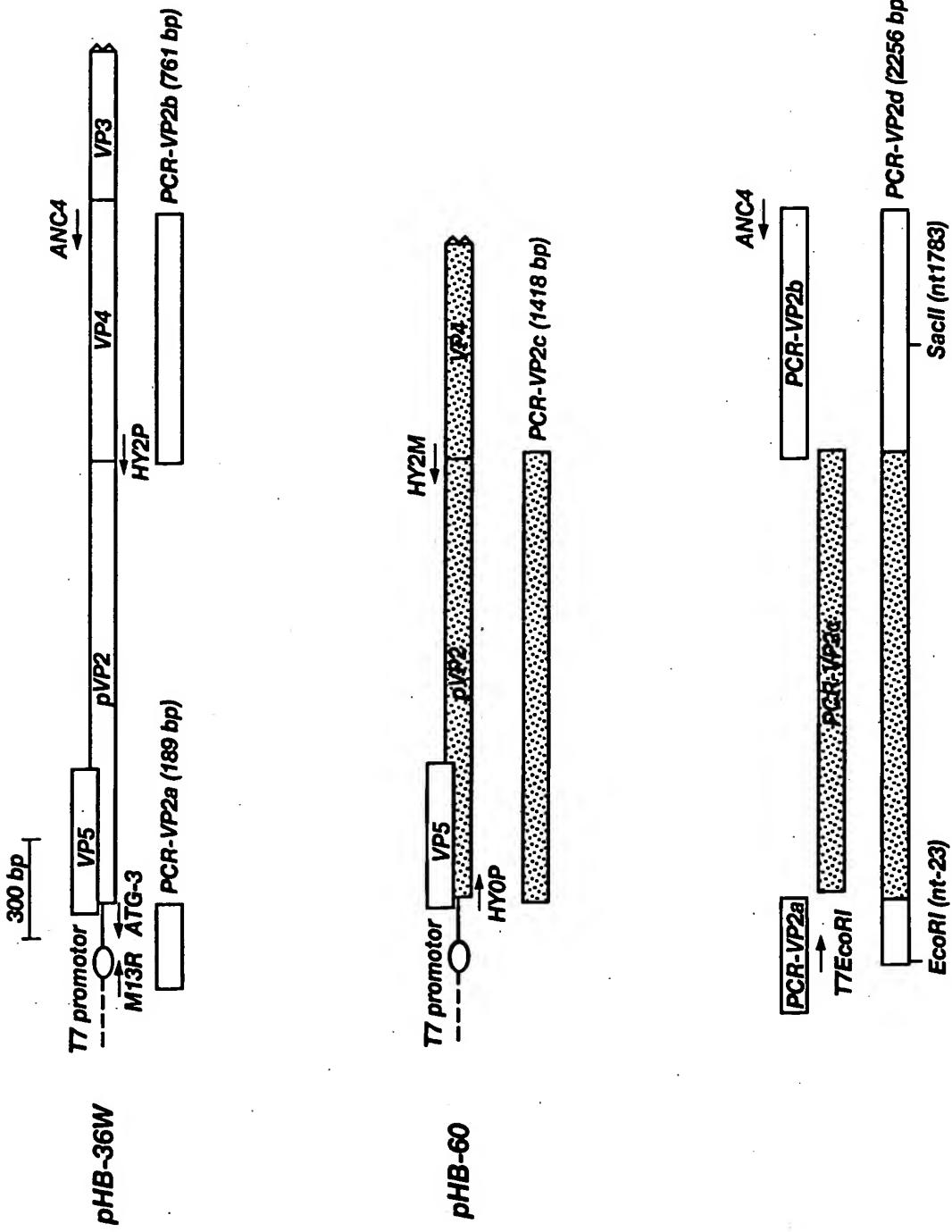


FIG. 26

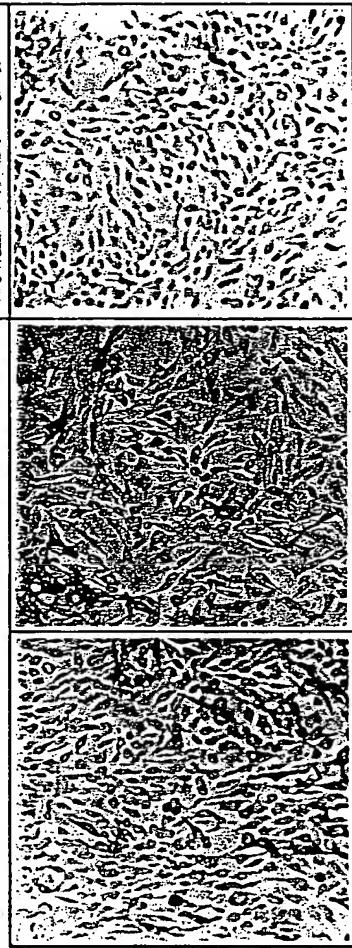
**FIG. 27**

QM5 cells

mCEF94-wWP2

mCEF94-wWP3

mCEF94-wWP4



Bursa cells

mCEF94-wWP2